

# The New Universe Model

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## **ABSTRACT**

In this paper we deduce the new gravitational formula. Gravity is the tachyonic centripetal force. Using it we establish the new universe model.

**Keywords:** Tachyon. Tardyo. New gravitational formula. Centripetal force.

#### INTRODUCTION

Using the tardyonic and tachyonic coexistence principle [1-5]

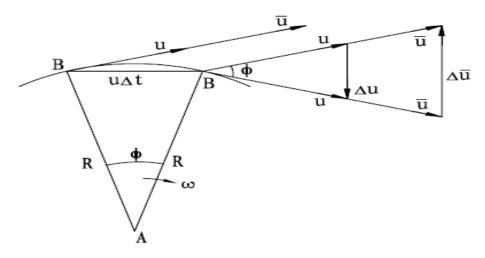
$$u\overline{u} = c^2 \tag{1}$$

Where c is light velocity in vacuum,  $u \le c$  tardyonic velocity and  $\overline{u} \ge c$  unobservable tachyonic velocity.

We deduce the new gravitation formula:

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

Figure 1. shows that the rotation  $\omega$  of body A emits tachyonic mass  $\overline{m}$ , which forms the tachyonic and gravitation field and gives the body B revolutions u and  $\overline{u}$ .



**Fig1.** On body  $B \frac{du}{dt}$  and  $\frac{d\overline{u}}{dt}$  coexistence [2].

From Fig. 1 it follows

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

From (2) it follows the tardyonic centripetal acceleration on the body B [2-4],

$$\frac{du}{dt} = \lim_{\substack{\Delta u \to 0 \\ \Delta t \to 0}} \frac{\Delta u}{\Delta t} = \frac{u^2}{R}.$$
 (3)

From Fig. 1 it follows

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

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

$$\frac{d\overline{u}}{dt} = \lim_{\substack{\Delta \overline{u} \to 0 \\ \Delta t \to 0}} \frac{\Delta \overline{u}}{\Delta t} = -\frac{u\overline{u}}{R} = -\frac{c^2}{R}.$$
 (5)

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

From (3) it follows the tardyonic centrifugal

force on body B [2-4],

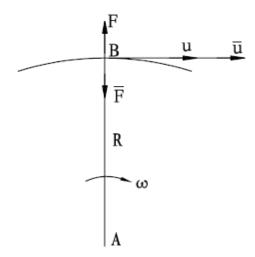
$$F = \frac{M_B u^2}{R},\tag{6}$$

Where  $M_B$  is body B mass?

From (5) it follows the Tachyonic centripetal force on body B, that is gravity [2-4],

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

Where m is the gravitational mass converted into by Tachyonic mass  $\overline{m}$  which is unobservable and give all particles mass, but m is observable? On body B F and  $\overline{F}$  coexistence.



**Fig2.** On body B F and  $\overline{F}$  coexistence [2].

From Fig. 2, it follows

$$F + \overline{F} = 0. (8)$$

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

$$\frac{m}{M_{P}} = \frac{u^2}{c^2} \,. \tag{9}$$

Body B increases mass m and centrifugal

force is greater than gravitational force, then body  $\boldsymbol{B}$  expands outward.

From (7) it follows Newtonian gravitational 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

$$m = k \frac{M_A M_B}{R}, \tag{10}$$

where k is constant

Substituting (10) into (7) it follows the Newtonian gravitational formula [2-4]

$$\overline{F} = -G \frac{M_A M_B}{R^2}, \tag{11}$$

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

In the Universe there are two matters: (1) observable subluminal matter called tardyon (locality) and (2) unobservable superluminal matter called tachyon (non-locality) which coexist in motion. The universe has no beginning and no end. The universe is infinite.

Using Fig.1 we establish the new universe model.

- Body A is earth center, body B is the moon;
- Body A is the sun center, body B is the Mercury, The Venus, the Earth, the Mars, the Jupiter, the Saturn, the Uranus, the Neptune and the Pluto;
- Body A is Galactic center, body B is stars in the milky way;
- Body A is the Chun center, body B is stars in the Chun system;
- Body A is the universe center, body B is stars in the universe.

In Fig.2, on body B there is tardyonic centrifugal force and tachyonic centripetal force coexistence. It is the universe foundations. All matter has the tachyonic gravity. We should establish new cosmological theory and new particle physics theory.

Newtonian gravity formula is based on empirical evidence. He did not explain what is gravity? How it works? Equivalence principle is not exist. The gravitation must not be described by a "metric theory". The Einstein field equations are wrong..Dark matter, dark energy, observable gravitational waves and black holes do not exist. Multiverse and inflation are mistake.

#### REFERENCES

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universe: 
$$\overline{F} = -\frac{mc^2}{R}$$