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The Expanding Earth :

Is the Inflation of Heavenly Bodies Caused by Reoriented Particles under Gyrotation Fields?

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Abstract

Gravitomagnetism [1] consists of Newtonian gravity and *gyrotation*, which is totally analogous to magnetism. In an earlier paper [2], based on findings with regard to the Sun, I suggested that the attraction between elementary particles is generated by a Coriolis effect between gravitons and particles. Here, I deduce that the amplitude of gravity between particles (the process of reciprocal graviton-losses) is ruled by the spin-orientation of particles. Like-oriented particles engender their mutual repel, and consequently the inflation of heavenly bodies that was suggested by the Expanding Earth Theory.

1. The expanding earth theory

The discovery that the continental drift theory is wrong and that the Earth is instead expanding, from a small object to the Earth of today, is about to be accepted as a standard. Also Mars is expanding and the Sun as well. This motivated me to progress on my theory on the Coriolis effect of gravitons, interacting with elementary particles.

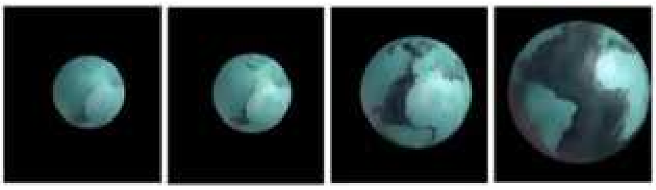

Image: Michael Netzer

Figure 1. Expanding Earth Theory. Some billion years ago, the earth was a small sphere (shown in the middle). It grew and the surface got broken into parts. Newer parts appeared below the sea level.

What made the Earth grow? Is it still expanding? How about other heavenly bodies? It is the purpose of this paper to unveil the reasons of it.

2. The internal gyrotation field of a rotating body [1]

Rotation, and the motion of bodies create fields and forces in addition to gravity. I call this second field *gyrotation*, which is the 'magnetic'-analog equivalence in gravitomagnetism and which is responsible for the flatness of our solar system and of our Milky Way.

As explained in my paper, the gyrotation of a rotating body provides a magnetic-like field that acts internally as well as externally to the body upon moving masses.

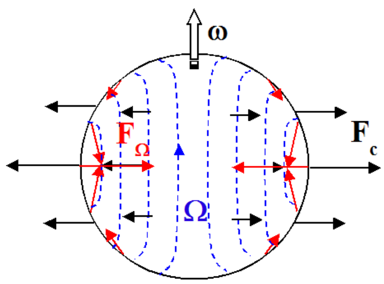

Figure 2. Internal gyrotation equipotentials Ω of a spinning body at a spinning rate ω. Surface gyrotation forces are indicated as F_Ω and centrifugal pseudoforces as F_c .

In figure 2 , the internal gyrotation equipotentials Ω of a spinning body at a spinning rate ω are shown. The gyrotation fields are parallel and oriented like the rotation vector. The surface gyrotation forces are indicated as F_Ω and the centrifugal pseudoforces as F_c.

3. The preferential orientation of particles under a gyrotation field

Trapped light is the most convenient way to describe matter [2]. (I prefer the terminology 'trapped light' over 'trapped photon', since photons are often regarded wrongly as particles instead of waves). When elementary particles are not preferentially but randomly oriented, six orientations are possible, like the six sides of a dice or any linear combination of them. But when a gyrotation field acts upon the body, a reorientation will occur over time in the sense that the gyrotation direction is preferred. Initially, a precession upon the particle's spin will occur, but because the particles are trapped light, they are not to be considered as 'hard' objects, and their light path will be able to swivel. There will be an increasing number of particles that will swivel.

In figure 3, several relevant cases of elementary particles are shown that are in a gyrotation field and undergo an analogue Lorentz-acceleration $\vec{a}_\Omega = \vec{c} \times \vec{\Omega}$ (1)

wherein $\vec{c}$ is the velocity of the trapped light and $\vec{\Omega} = \vec{\Omega}_{\text{int}}$ the interior gyrotation field of the spinning object. For a sphere, like the Sun, the Earth or Mars, its value, simplified for an uniform density, is given by [1]:

$$\vec{\Omega}_{\text{int}} = \frac{3Gm}{c^2 R^3}\left(\vec{\omega}\left(\frac{2}{5}r^2 - \frac{1}{3}R^2\right) - \frac{\vec{r}\left(\vec{r}\bullet\vec{\omega}\right)}{5}\right) \qquad (2)$$

wherein $\vec{\omega}$ is the spin velocity of the object, r the first polar coordinate, $\vec{r}\bullet\vec{\omega}$ a scalar vector product, equal to $r\,\omega\cos\alpha$ with α the second polar coordinate, R the radius of the object and m its mass. The swiveling acceleration is then given by Eq. (1) but the inertial moment of the elementary particles will slow down that swivel, and on top of it, a Coriolis effect upon that swiveling motion will make the particles' orbit precess.

In the figure 3.b. and c., the particles swivel their spin vector towards the gyrotation field's direction; the particle in the figure 3.a. will not swivel, since its acceleration is oriented inwards the particle.

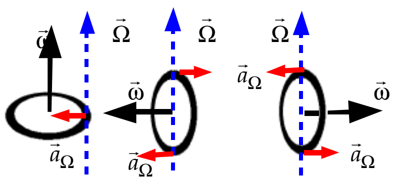

Figure 3.a.b.c. Three situations of spinning particles at a spinning rate $\vec{\omega}$, under a gyrotation field $\vec{\Omega}$. In the cases 3.b. and 3.c. there occurs a swiveling of the particle towards a like orientation as the gyrotation's direction, due to an acceleration $\vec{a}_\Omega$.

It follows that after time, the random distribution of particles will not be maintained, but instead an excess in a preferential direction.

4. Gravity between particles as a Coriolis effect

The gravitation field can be seen as a Coriolis effect [2], applied upon trapped photons. For two elementary particles with their respective trapped light orbits C_i and C_j, at a reciprocal distance of R_{ij}, the interaction with a graviton that orbits about the light orbit C_i is given by the Coriolis acceleration $\vec{a}_C$ which equals to $2\vec{\omega}_j \times \vec{c} = -\vec{a}_C$ (3)

wherein ω_j is the angular velocity, c the speed of light, and

$a_C = G m_i / R_{ij}{}^2$. (4)

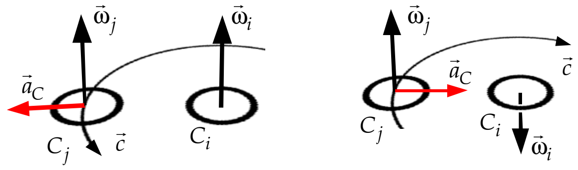

Figure 4.a. Like-oriented elementary particles of trapped light, hit by a graviton and undergoing a Coriolis acceleration $\vec{a}_C$. The particles repel. Figure 4.b. Unlike-oriented trapped light, hit by a graviton and undergoing a Coriolis acceleration $\vec{a}_C$. The particles attract.

Like-oriented particles of trapped light that are hit by a graviton and that are undergoing a Coriolis acceleration $\vec{a}_C$ will repel (figure 4.a). Unlike-oriented trapped light however that are hit by a graviton and that undergo a Coriolis acceleration $\vec{a}_C$ will attract (figure 4.b). The amplitude $\left|\vec{a}_C\right|$ is identical in both cases.

What are the consequences of the preferential orientation of particles?

5. Gravitational consequences of the preferentially like-oriented particles

Under a gyrotation field, caused by the spinning of the object, more elementary particles will get like-oriented, and these like oriented particles repel. The inflating of heavenly bodies is occasioned by the repel of the excess of like oriented particles in one direction.

Let's go over the main features of like and unlike spinning elementary particles:

1° Gravity between elementary particles can be an attraction as well as a repel.

2° Consequently, the 'universal' gravitation constant isn't universal at all but 'local' and its value depends from the degree of like or unlike orientations of particles in the bodies.

3° Rotating (spinning) bodies get steadily more like-oriented particles and consequently, steadily higher values of the 'local' gravitation constant.

4° The gravity of an object, containing ideally random-oriented particles doesn't have any global gravitational effect! In other words, if there is no preferential orientation of the particles, no global gravitational attraction (or repel) will occur!

5° The parameters of the gravitational attraction and repel of bodies are their masses (as far as they can be regarded as absolute values), their distance and their excess quantity of like oriented particles (also expressible by the 'local' gravitation constant of each of the bodies, as vectors).

6° Rotating (spinning) bodies inflate.

6. Discussion

The Sun, the earth, Mars and all the planets that spin or that are influenced by the spinning Sun, undergo a transformation inside. The rotation of the bodies generate a gyrotation of the same orientation inside the bodies. Due to the Coriolis affect, like spinning elementary particles get repelled and unlike attracted.

But, let us analyze the external gyrotation of spinning bodies, as a bonus.

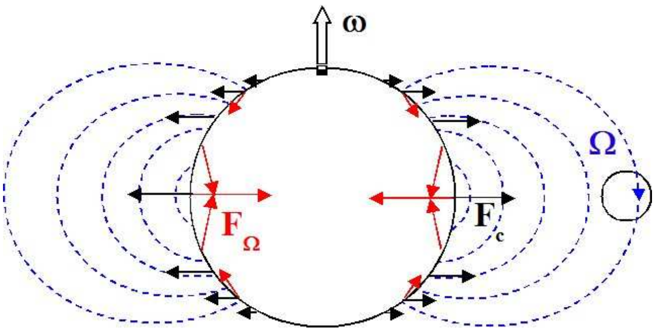

Figure 5. A rotating body also provides an external gyrotation Ω that has an inverse orientation of the body's rotation. Every orbiting body gets that gyrotation field working on it, which orient the elementary particles to it, with time. Attraction of the body occur. Surface gyrotation forces are indicated as F_Ω and centrifugal pseudoforces as F_c.

Spinning bodies indeed procure a gyrotation field that is the inverse of the body's rotation, and every orbiting object will undergo that gyrotation field by orientating the particles preferentially in the inverse direction (see figure 5). Let the large body be the Sun and the small one the Earth. Since the excess of orientation of the Sun's particles is opposite to the one of the Earth, the gravitons will cause attraction. On the long term, the Earth's rotation will slow down, the more that the earth expands, but the number of like-oriented particles with the Sun will increase at a slower rate as well, and cause a slower widening of the Earth's orbit with time.

One could wonder if the objects on Earth wouldn't be changing their weight, depending from the orientation of the object. Would an upside-down object be repelled by the Earth? No, because the elementary particles conserve their orientation, whatever the bodies orientation is. And the Earth's gyrotation field is more or less oriented likewise over the Earth, opposite to the Earth's rotation, which results in a comparably attraction force all over the world.

7. Conclusion

The expanding Earth has an explanation that is consistent with gravitomagnetism and with (what I would call) the Coriolis Gravity Theory [2]. The like spin of elementary particles cause gravitational repel and the unlike spin, attraction. Gyrotation fields, induced from rotation, orient these spins preferentially likewise with the body's rotation, which results in the repel inside the body, and so, its expansion. The consequence of it is that gravity doesn't always mean attraction, because it depends from the excess of orientation of particles in specific directions. Gravity can be repulsive and attractive. The gravitation constant is not a constant at all but should rather be seen as a fraction of a mass one (when masses are regarded as absolute entities) that interferes with the fraction of a mass two. It is then probable that the supposed 'absolute' mass of some planets is different of what has been supposed until now.

References

[1] De Mees, T., "Analytic Description of Cosmic Phenomena Using the Heaviside Field", Physics Essays, Vol. 18, No. 3 (2005).

[2] De Mees, T., "Is the Differential Rotation of the Sun Caused by a Graviton Engine", Proceedings of the NPA, (2010).