

Arend Lammertink <lamare@gmail.com>

An exceptionally elegant "Theory of Everything" AND REPULSIVE GRAVITY

Zbigniew Modrzejewski <zbigniew.modrzejewski@gmail.com> To: lamare@gmail.com Cc: dissidents@tuks.nl Fri, Oct 14, 2016 at 7:26 PM

Dear Arend Lammertink and fellow dissident scientist,

Hello, and warm greetings from Waterloo, Ontario, Canada.

I wonder if your **exceptionally elegant "Theory of Everything"** could somehow support my gravity generation hypothesis ?

I believe I understand how **attractive**, as well as **repulsive** gravity is generated.

My understanding comes from contemplating how our solar system (a complete, natural gravitational system) works.

It is worth noting that Newton's apple did not fall just under a tree. It fell under a tree, but in **our solar system**, where the Sun, and (almost) all planets and their moons, **spin** and rotate :

http://www.naturalphilosophy.org/pdf/abstracts/abstracts_6324.pdf

" The obtained empirical data contradict the equivalence principle of **inertial and gravitational** mass :

- 1. http://phys.org/news/2011-07-gyroscope-unexplained-due-inertia.html
- 2. http://arxiv.org/abs/1302.2775
- 3. https://arxiv.org/abs/1101.4678

In my opinion, one of the principal elements that compose the **complex** phenomenon of gravity is a **spinning** mass, **or** a mass composed of spinning elementary particles, **or** both.

I consider **matter** to be essentially an **electric structure**, and that could be the basis of **connection** between gravity and electromagnetism, as postulated in Kaluza-Klein **unification** —

"Kaluza and Klein showed, using general relativity, that this extra dimension would still have an effect on the space around us. In particular they showed that the effect of **gravity** in that very small fifth dimension would actually appear to us, from our larger-scale perspective, as **electromagnetism**:

- https://plus.maths.org/content/kaluza-klein-and-their-story-fifth-dimension
- https://www.researchgate.net/publication/241520428_Antigravity_and_classical_solutions_of_ five-dimensional_Kaluza-Klein_theory

and, also in another scientific mainstream theory -

" Gravitomagnetism is produced by stars and planets when they **spin.** "It's similar in form to the magnetic field being produced by a **spinning** ball of charge," explains physicist Clifford Will of Washington University. Replace charge with mass, and magnetism becomes **gravitomagnetism** :

http://www.nasa.gov/vision/universe/solarsystem/19apr_gravitomagnetism.html

If magnetic field is being produced by a spinning ball of charge, gravity, according to my conjecture, is produced by a **spinning mass** which, similar to the Earth, possesses its **magnetic field**, as well as an **electric field** (" *the 'electric terms' correspond simply to the gravity that keeps our feet on the ground* "), because the Earth is considered to be also an **electric capacitor :**



In my view, it is not so much an issue of **unification** of "gravity" **and** electromagnetism, but gravity (attractive or repulsive) being a result of spinning mass with its magnetic and electric fields.

The theory of **gravitomagnetism** indicates that gravity could also be, to some extent, produced even by a spinning mass with its magnetic filed :

"Written out in full glory, the equations of General Relativity are intensely complicated. Indeed, they have been solved in only a few special cases. One of them is the case of weak gravity, like we experience here on Earth. In the '*weak field limit*', Einstein's equations reduce to a form remarkably like Maxwell's equations of electromagnetism. Terms appear that are analogous to the electric field caused by charges and the magnetic field produced by the flow of charge. **The** '*electric terms*' correspond simply to the gravity that keeps our feet on the ground. The '*magnetic terms*' are wholly unfamiliar; we don't sense them in everyday life. "

A similar theory, called **electrogravity**, (see the attached) postulates possibility of generating gravity, to some extent, by a spinning mass with its "asymmetric" electric filed, with a gradient :

https://arxiv.org/ftp/physics/papers/0211/0211001.pdf



The startling revelation was that, if placed in free suspension with the poles horizontal, the condenser, when charged, exhibited a forward thrust toward the positive pole! A reversal of polarity caused a reversal of the direction of thrust.





3,187,206 Patented June 1, 1965

1

3,187,206 ELECTROKINETIC APPARATUS Thomas Townsend Brown, Walkertown, N.C., assignor, by mesne assignments, to Electrokinetics, Inc., a corporation of Pennsylvania Filed May 9, 1958, Ser. No. 734,342 23 Claims. (Cl. 310--5)

This invention relates to an electrical device for producing thrust by the direct operation of electrical fields. I have discovered that a shaped electrical field may be employed to propel a device relative to its surroundings in a manner which is both novel and useful. Mechanical

forces are created which move the device continuously in

one direction while the

2

trode of special configuration whereby the electric linesof-force are made to converge at a distance from the electrode. One illustrative embodiment of this invention which satisfies the above requirement is an arcuate surface or, alternatively, a system of wires, tubes or plates embedded in a dielectric surface and forming a directive array. One such highly-charged electrode acting within and upon an ambient of different electrical potential will move in response to the forces created by the shaping of
the electrostatic field. If a smaller electrode is added at or near the focus of the field-shaping electrode as a system will move in a direction of the larger or field-shaping electrode. As is mentioned above, the field-shap-



In my view, in order to **fully** generate gravity, we need a spinning mass with its magnetic, and electric field.

In this case we have three parameters with two values each :

- direction of spin (left or right);
- orientation of magnetic poles;
- orientation of lines of electric field.

Now, we could consider two spinning massive bodies, in a cosmic space, with variety mutual **configurations** of the above three parameters.

Some of these configurations may yield gravitational **attraction** between these two bodies, some may yield gravitational **repulsion**, and some may, perhaps, even yield a gravitational **stability**, like in our solar system, see the image below: **toroidal vortex** (due to both spins), because "gravity" is even a more **complex** phenomenon than magnetism, and therefore I do not consider it to be an elementary, fundamental, or exclusively attractive and repulsive, force :

https://www.youtube.com/watch?v=72LWr7BU8Ao

- https://www.youtube.com/watch?v=pnbJEg9r1o8
- https://www.youtube.com/watch?v=al799tMnAk8
- http://www.washington.edu/news/2014/02/03/solving-a-physics-mystery-those-solitons-are-really-vortex-rings/



I have good reasons to think that the phenomenon of gravity is a so-called **"emergent phenomenon"**, similar to "temperature". An excellent book on the idea of "emergent phenomena" is :

A Different Universe: Reinventing Physics From the Bottom Down https://www.amazon.ca/Different-Universe-Reinventing-Physics-Bottom/dp/0465038298

by Prof. Robert B. Laughlin (1998 Nobel Prize in physics) https://physics.stanford.edu/people/faculty/robert-laughlin

My approach to **solving the mystery** of attractive and repulsive gravity is a "macro-empirical" approach, like **Faraday's**, because Faraday was no quantum physicist, to be sure! :))

After Faraday had laid his **"macro-empirical"** groundwork, it was only Maxwell, who finally was able to produce the full (non-quantum) mathematical description. Then again, finally, there was a quantum level mathematical description produced.

So, with my hypothesis, I am at the "pre-Faraday" stage. :))

Both, gravitomagnetism and electrogravity, happen to have some empirical evidence in their favor. My conjecture, in general, combines gravitomagnetism with electrogravity from the perspective of the Kaluza-Klein unification.

IF, in fact, there were also to be a repulsive gravity, FIRST, I am deeply convinced, we need to be able to demonstrate this fact empirically, like Faraday, instead of mathematically "fish" for it, like Einstein did with GTR, and Superstring theorists do. :))

All we need to empirically verify my hypothesis is a **simple and inexpensive experiment**

that requires constructing a device that combines a gyroscope, a magnet, and electric capacitors :

- appropriately oriented and tuned -

which is essentially how **planets**, their **moons**, and **entire Solar system** seems to work, in general.

.

I welcome your questions, and at the same time I am looking forward to our discussion, and especially I welcome **your criticism.**

Thank you.

With respect and much gratitude, I am Sincerely yours, Zbigniew Modrzejewski http://db.naturalphilosophy.org/member/?memberid=2608&subpage=contact