

Matters of Gravity

The newsletter of the Goede Scientific Foundation

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Editorial: This issue is our first newsletter, with the contents of our first test.

The following newsletter, due in a few weeks, will cover the Schnurer Podklednov experiment. To retrieve it, send mail to info@gravitation.org. Comments/questions/complaints about newsletter are welcome.

Drop tests with electromagnetic test bodies

In this research we reproduced the experiments of Don Kelly (1991) http://www.world-famous.com/DonKellyStuff/**DonKellyHomePage.html.

He claimed, that drop test bodies with solenoids, permanent magnets and other electromagnetic configurations will fall slower than nonmagnetic dummies. His setting and results were rather rough, so further investigation seemed to be advisable.

Realization:

Our drop test bodies (called EMZ) are designed as polyacryl spheres with a diameter of about 300mm. This should reduce air drag. Different electromagnetic configurations are mounted on the equatorial plate.

Test body EMZ1 contains 19 coils (solenoids) in hexagonal configuration, all with the magnetic north pole downwards, if power is positive. Different cores, as BaFe and St37 steel, can be mounted into the coils. The power is supplied by symmetrical left and right arranged flexible cables.

Test body EMZ2 contains 18 solenoids in a circle of 250mm diameter.

Test body EMZ3 contains 36 solenoids in a circle of 250mm diameter in tightest packing.

Test bodies PM1 and PM2 consists of permanent magnets (NdFeB) in a 5x5 matrix. Each five are mounted on plastic support in a row all with northpole at the same side. The rows are mounted upright with north-north and south-south configuration (bucking wave configuration).

The test body is held by an electrical release mechanism. We are using three light gates in a distance of 1100mm each. The total test range is 2200mm. The time resolution of the light gates and computer measurement equipment is better than 150ms.

Now we tested different cores and power configurations, each with series of 10 drop tests.

1. no power
2. with positive DC 12V
3. with negative DC 12V
4. with AC 12V, 50Hz, 500Hz, 5kHz sinewave
5. with AC 12V, 5kHz rectangle

The DC and AC power was about 56W. The weight of the test bodies was $m=1922$ g. We used offset masses, to reach the same weight. We paid attention to similar conditions (also environmental) during the tests. With all combinations mixed we did about 1000 drop tests.

Results:

The time between passing upper and lower light gate (dist=2200mm) was measured for all these different test body configurations.

We can not discuss all our results in detail here, but one point is outstanding:

All our drop times are in a range of 569ms and 572ms. That corresponds to 0.5%. The deviations are mainly from environmental influences. Our results until now do not show any coupling of electromagnetic and gravitational fields.

Kelly claimed prolongations of drop time of 60% between not energized/energized setting. We could not reproduce his results.

Additional information:

In conjunction with analysis, concerning possible gravitational effects on high temperature superconductors, new scientific ideas have emerged.

Currently there are intensive discussions in the surrounding of the so called Greenglow-Project of the British Aerospace.

Besides the reduction of air-friction and the improving of the lifting power of the wing, additionally substantial questions are examined.

<http://www.egroups.com/message/greenglow/>

The so called Electromagnetic gravitation presents a more avant-garde theme.

Meaning the possibility of a local influence of mass-gravity and mass-inertia by electromagnetic fields.

Below quoted extracts deal with the Podkletnov-Experiment (Details in:

<http://www.gravity.org>

"In 1992 a Russian chemist and physicist working in Finland, E. Podkletnov, reported in a technical article that he had observed, as unexpected by-product of measurements about high-Tc superconductors, a weak (0.3%) local modification of the gravitational acceleration. The article remained almost unknown. "

"Podkletnov continued his experiments and improved the apparatus. At the end of 1994 he was contacted by an Italian physicist, G. Modanese, who had read his article and had conceived a theoretical model to explain the observed effect. Podkletnov confirmed that also the new apparatus was showing a local weak (now up to 0.5%) modification of the earth's pull.

Modanese sent an electronic report to the Los Alamos archive in May 1995.

This raised more interest in the phenomenon"

The Podkletnov-Experiment is based on the fast rotation of a large superconductive disc made of YBaCuO. At the current scientific state, a transitional stage concerning superconductors is decisive.

The electron within the superconducting phase take the" quantum fluid "as a special condition called Bose-Condensate.

Schnurer, Podkletnov and other HTSC-Experiments

It looks like as if the understanding of the properties of Bose condensates is the most important key for the manipulation of gravity by electromagnetic means.

In May 2000 Dr. Alex Kaivarainen from University of Turku (Finland)

<http://www.karelia.ru/~alexk>

has published another article about Hierarchic Theory of Matter and Field, containing some interesting remarks about

MOLECULAR BOSE CONDENSATION.

The article itself deals with the Hierarchic Model of Consciousness, which is of minor interest , but based on Hierarchic Theory of Matter and Field. This Hierarchic Theory of Matter and Field was developed by the author (Kaivarainen, 1995; 2000; <http://arXiv.org/abs/physics/0003044>, in his latest article he describes the application of Hierarchic Theory of Matter and Field to properties of water in microtubules (MT) and distant exchange electromagnetic interaction between MT.

"Bose condensation in form of coherent clusters in condensed matter (liquid or solid) at the ambient temperature was rejected for a long time. The reason of such shortcoming was a wrong primary assumption, that the thermal oscillations of atoms and molecules in condensed matter are harmonic ones."

(In this context I suggest a reading in the BAe University Roundtable report which is since 24th of September available at <http://www.egroups.com/files/electroaerodynamics6/BAe/bae.pdf>

Look to pages 103-109 authored by Dr. P. A. Hansson from Commercial Space Technologies (Biophysical Models for Microgravity Research)

"In this context it should be remembered that living systems do show some solid state processes such as:

1. Conduction over energy barriers (tunneling)
2. Superconducting property
3. Piezoelectric property
4. Transmission of Infra-Red energy in lipid bi-layers

These could be of special importance, since the purely Newtonian gravitational field does not contribute to the net EMF.")

Dr. Kaivarainen further writes in 0003045:

"It is a strong evidence that oscillations of molecules in water and ice are strongly anharmonic and the condensed matter can not be considered as a classical system.

It can be a consequence of piezoelectric properties of microtubules and will stimulate the formation of coherent water clusters in the open nonpolar cavities of dimmers. The open cavities can serve as centers of water cluster formation and molecular Bose condensation (primary librational effectons).

Water can exist alternatively in the form of translational or in the form of librational effectons. Conversion from one type of collective excitation to another one can occur simultaneously in many parallel microtubules with similar coherent properties of intra-MT water. It is a result of resonance-exchange process, mediated by electromagnetic, acoustic and vibro-gravitational deformons.

The ability of intra-MT primary water librational effectons for superradiation of coherent IR photons from each of the effectons side, approximated by parallelepiped: two identical-"longitudinal" IR photons, penetrating along the core of microtubule, forming the longitudinal standing wave inside it and two pairs of identical - "transverse" IR photons. Both kinds of waves are responsible for the distant, nonlocal interaction between microtubules.

We have to stress here that our idea of IR superradiation, produced by water in MT's or in other condensed matter - is an inherent property of our primary effectons, resulted from mesoscopic molecular Bose condensation (Kaivarainen 1992, 1995). This idea is independent on similar, used in the model of MT's as wave guide of superradiation for longitudinal photons, proposed by M. Jibu et al. (1994). The difference in two approaches is that we assume in MT the existence of "transverse" radiation of IR photons as well as "longitudinal" ones. "

To get a deeper understanding on the possible interactions between electromagnetic fields and gravity, I highly recommend to study the BAe University Roundtable report available at

<http://www.egroups.com/files/electroaerodynamics6/BAe/bae.pdf>

- * pages 47 - 50, 52-54
- * pages 66-68
- * pages 88-92
- * pages 93, 97 "Unification of EM with Gravity"
- * pages 100-104 "Microgravity"
- * pages 108-110 linearised gravity-theories
- * pages 114-119, 123, 127 EM-Gravitation
