A PROPOSAL FOR PILOT EXPERIMENTS ON GRAVITATIONAL LEVITATION

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Experiment to prove the weak gravity condition for our cosmos
The purpose of this proposal is the disentanglement between tangential and radial energy stored around a gravitational source. Due to the disentanglement the attraction to a pilot mass is destroyed in the sense of quantum mechanical exchange between radial and tangential pseudo vector clusters. In other words the pilot mass levitates or hovers, no air involved, above the surface of Earth.

Some precursor experiments are needed before the gravitational levitation is possible. Firstly the propagation of the electromagnetic power through all kind materials has to be researched. After this and understanding the power loss process then g-levitation is just a matter increasing the power cross section to the impact of the Earth surface

Par1 Introduction. What is levitation of a mass under the influence of gravity on Earth?

The theory of dark matter that determines how this medium relates to gravity indicates that a mass attracted by Earth's gravity can levitate or levitate with relatively little electromagnetic power. As soon as the power generator is switched off, the levitation effect disappears and the mass falls back to the earth's surface. It is expected that levitation may not be effective at great heights (kilometres) due to power losses from scattering of the electromagnetically applied wavelengths of about 10 cm or about 3.5 gigahertz.

In relation to other techniques for levitation, g-levitation (gravitational levitation) has no similarity with air cushion formation or works differently from magnetic levitation used in trains.

The proposal for the experiment involves the simultaneous use of electromagnetic sources of different frequencies around 3.5 GHz to break the gravitational pull through interaction with the ultra light dark matter medium to levitate a mass above the Earth's surface. Estimates from the dm theory show that with an electrical power of say 1000 watts or 1 kW of about 100 kg can be kept in stationary levitation. It should be mentioned that at least ten times as much pulsed energy will be required to generate the levitation effect. This is to create the resonance state of levitation.

Reason for the experiment to prove the weak gravity condition
The scientific goal is to show that indeed the ultra light or ultra fast dark matter is the cause of how gravity is generated in the Earth.

If this succeeds, there are commercial applications. For instance:

> Lifting operations of 100 kW power to levitate 10 to 20 tons of mass. This includes technical development to reduce the power sources in such a way that the transport of the driving power does not form an obstacle.

> Heavy transport through deserts as well as over water. The maximum speeds for transport are still unknown, but 100 km per hour is certainly not excluded.

> Tourist attractions. Hotels levitated. One megawatt levitates 100 tons.

Par 2 Summary for the experimental parameters of the pseudo vector theory

Understanding the pseudo vector theory delivers all the necessary information for a most unusual experiment in physics.
- The solar calculations provide most of the information needed to set up the experiments.

- Disentanglement is the undoing of the local condition of the radial and tangential velocities which are equal at different moments in time for a radius from the g-source. The theory tells us that at any radius disentanglement could be possible.
- The quantum process is nonlinear due to the substitution principle of the entanglement between the tangential and the radial line parameters responsible for the spherical symmetry around a g-source. The superposition between frequencies, time intervals cannot work.
- The square root frequency parameters are the ones to use for reasons that unlinking the ties of entanglement has to come from the ratios of angular momentum. This is the result of the solar calculations.

During the period solar calculations were discovered it was never a considered which of the ratios between three the frequencies was on what side, now given in wavelength in mm:

$$9 \quad (4/3) \quad 6.75 \quad (3/2) \quad 4.5 \quad \text{or} \quad 9 \quad (3/2) \quad 6 \quad (4/3) \quad 4.5$$

Dark matter inference for double rotation is correct for the 9 and 6 mm because dm never is above the c-velocity. Photon interference of double rotation violates the laws of relativity. Namely the radially the tangential velocity could vary which is not possible for photons.

So the wavelength for the power sources determined by the square root ratios are:

$$9.49 \quad (\sqrt{3}/2) \quad 7.74 \quad (\sqrt{4}/3) \quad 6.71 \quad \text{in cm}$$
$$3.16 \qquad\qquad 3.88 \qquad\qquad 4.47 \quad \text{GHz}$$

Understanding the physics of the pseudo theory correctly one meets two options for the electromagnetic power engagement to the surface of Earth.

- Lossless propagation by penetration the surface for the ratios $\sqrt{4/3}$ and $\sqrt{3/2}$ needing at least three power klystrons around 5 GHz.
- Having power klystrons for the ratio of $\sqrt{3/2}$ means the decoupling between radial and tangential parameters which should also be a process of lossless propagation into the earth surface.

The first experiment means that even if all other e.m. frequencies cannot penetrate, this frequency window is the only one. Due to sideway losses in e.m. power the penetration depth can be proportional to the amount of used power. It is guessed that passing a certain threshold to get the electron mobility in matter in line to the incident power. In coming below the threshold the power fizzles out.

Conclusion for experiment

To confirm the physics following the theory of the solar calculations two experiments with two power sources have to be executed.

Both are more or less penetration experiments for frequency windows far above the e.m. frequency of ground radar penetration. The radar frequency range are single power sources which cannot penetrate solid matter surfaces of all kind of materials. Therefore the first step is to use water as experimental medium and after some success other material can be used.

Par 3 The experimental set up

Substitution angle of θ and antenna heads (ref 1)

In par 5 of chap 3 the substitution angle of θ was mentioned and calculated around 10°. Although the H atom suggests a angle of θ between 12 and 13°. In the nonlinear arrangement of the entangled pseudo medium it means that the radial and tangential e.m. pointing fluxes are needed for power propagation in the vertical direction. The antenna heads of the e.m. power sources should be designed accordingly and the incident power has to have a conical convergence or divergence. A phase time delay for θ is not correct. Two options in design seem to be possible: the main antenna head with some 10° angle of deviation perpendicular or two heads placed 45° to the vertical including the deviation. One head at 35° and the other at 55°. Interference between both attuned heads should give the correct situation for propagation.

Detection
The propagation experiment for the first ratios in power frequencies can only have a calorimeter for the not allowed dissipation of power in a basin of water over some depth. The attuned power beam passing through water has to be set for propagation. No power reflections are allowed. In case of pulsed input power echo detection is possible and needed.

The propagation experiment for the ratio of √3/2 frequencies has more possibilities for detection. A calorimeter set up, accelerometer detection of the suspended antenna array just in case of... The detection of sum and difference frequencies due to the incident frequencies. Similarly pulsed input power echo detection is the option. Further it cannot be excluded a third source is needed the one for wave length of 6 cm. The wavelengths 9.5 and 7.74 cm is the most likely combination for levitation

The double rotation interference as it is understood is subjected to phase locking between the square root frequencies sources to generate the sum and different frequencies. So detection of these is important. The detection frequencies are:

Ratios		½√2	√3/2	√5/2	
Wavelengths	5.48	9.5	7.74	12.25	in cm

Side effects along the water column
Obviously by using the power density belonging to the λ of 9 mm the shakeup in electron density for the wavelengths of 9.5 and 7.74 cm is assured. However there is the sensitivity problem of around ten thousand between the power of dissipation and the one of propagation. One has to assess the absorption of e.m. energy in a λ –cell due to expected resonance and the loss of energy by propagation in case the expected effect is not happening.

There two options to overcome this problem. One is to use circular wave tubes with the diameter as experimental diameter. The other is similar but the metal of the tube is replaced by either plastic or glass. Also an experimental parameter can be the length of the tube by varying the watt per meter. Another experiment is by pulsed mode operation of the power sources by using the plastic or glass cylinders to study the side effect loss along the power beam propagation.

Note, as the process of gravity generation has been understood better, detection should also be adapted to dynamic Hall probes due to magnetic flux strings coherence next to the detection of electromagnetic stray losses.

Par 4 Consequences of dark matter impulse induction
Before the solar calculations a different manner was considered to tackle the dark matter problem. Not all together wrong.

The implication of the induction law of chap 1 due to the understanding of the mirror condition of the pseudo medium with respect of a macroscopic mass leads straight away to the entanglement transformations in chap 2 by applying these to the experimental conditions for levitation.

$$\lambda^2 = R_{sub} R_{lin} \qquad \text{and} \qquad R^2 = \lambda R_{lin}$$

Earth coherence length λ: either $\lambda = 4.5 \ 10^{-3}$ m or $\sqrt{\lambda} = 6.71$ cm (3.1)

Let us guess two situations because other parameters for guessing lead to nothing:

$$R_{sub} = \lambda_e \qquad \text{or} \qquad R_{sub} = \lambda_e /250.8082$$

With $\lambda_e = 2.426583 \ 10^{-12}$ m
and the mediating induction mass of 250.8082 m_e for the H atom which is derived in Bk1 chap 4.
Apply rel 3.1 to:

	$R_{sub} = \lambda_e$	$R_{sub} = \lambda_e /250.81$	$\lambda = 0.0671$	m
	$R_{lin} = 1.855 \ 10^{9}$	$R_{lin} = 4.654 \ 10^{11}$		m
	$R_1 = 1.12 \ 10^{4}$	$R_2 = 1.77 \ 10^{5}$		m

What do R_1 and R_2 mean? These are the dark matter radii somewhere within Earth. Since at $R = 0$ matter hardly contributes to the external surface R of 6000 km of Earth and dark matter is not bound to $R = 0$. A layer of dark matter spreads homogenously under the radius of 6000 km determining the layer thickness of R_1 and R_2.
Now determine the number of aligned λ-quanta for these layers. Alignment is allowed chap 2.

$N_1 = 11.2 \; 10^3 / 4.5 \; 10^{-3} = 2.48 \; 10^6$ $\qquad$ $N_2 = 1.77 \; 10^5 / 0.0671 = 2.64 \; 10^6$

$N_3 = 11.2 \; 10^3 / 0.0671 = 1.66 \; 10^5$

According to par 3 rel 3.1 and 3.2 the power per λ-cell is:

$1.8 \; 10^{-2}$ (4.5 mm) $\qquad$ and $\qquad$ $8.0 \; 10^{-4}$ (6.71 cm) $\qquad$ Watt

Multiply by N

$W_1 = 2.5 \; 10^6 \; x \; 1.8 \; 10^{-2} = 45 \; kW$ $\qquad$ $W_2 = 2.5 \; 10^6 \; x \; 8 \; 10^{-4} = 2 \; kW$

$W_3 = 1.7 \; 10^5 \; x \; 1.8 \; 10^{-2} = 3.1 \; kW$

From rel 2.1 and 2.2 the λ-cell times are respectively: $\quad$ $T_1 = 3 \; 10^{-11} \; N_1 = 75.0$ μsec (4.5 mm)

$T_3 = 2.26 \; 10^{-10} \; N_3 = 38.0$ μsec (6.71 cm)

What is the meaning of above calculation? Here in par 3 the result is for pseudo matter and independent of the atomic matter. So the density of water has to come in from another consideration. Further synchronisation of the time window of 75 or 38 μsec should give the steady state condition, the experimental condition for propagation which is the aim of the 1st phase in the experiments.

The levitation condition. The Majorana effect of the electrons
The naked conjugated state of the pseudo medium for the electrons is calculated in ref 2 which is about $20.33 \; x \; 4.53 \; 10^{-5} = 9.2 \; 10^{-4}$ eV or in the order of 1 mille eV per electron. Perhaps immersion around atoms could reduce this effect somewhat. Here this condition is applied to the coherence λ's gives the ratio:

$0.0671 / 2.426583 \; 10^{-12} = 2.77 \; 10^{10}$ $\qquad$ $N_{lev} = 2.77 \; 10^{10} / N_3 = 1.11 \; 10^4$

With respect to the worst power W_1: $\qquad$ $4.5 \; 10^4 / 1.11 \; 10^4 = 4$ watt per λ-cell
Now take the water mass of the cell: $\qquad$ $4 / 0.312 = 13$ watt /kg, see par 3.
For higher densities than water it is 10 times greater. So 13 watt /kg is the required electromagnetic power the levitate a kg water.

Discussion
Par 3 and par 4 show two approaches to tackle the problem. Steady state power is not the manner to do it. Pulsed power sources with pulse times of 100 times the calculated value to simulate the steady state condition for e.m. propagation through matter. The required power is around 10 kW. The 45 kW at 4.5 mm wave length is not required considering angular momentum is the parameter to for disentanglement.
Apart from above mentioned options for detection, echo detection is needed. Namely dark matter should drive matter in the conjugated state which is over say 11.1 or 177 km storing this energy. So relaxation of the stored energy cannot be instant if the power sources are switched off. Although the echo's are short around 50 μsec. Detection of echo effects is the only manner of indication for disentanglement.

Power sources
A 10 kW klystron unit for continuous use is around 150 thousand euro. A pulsed 10 kW power source designed for a maximum pulse time of say 0.5 mille sec is less expansive, say between 25 and 50 thousand euro per unit. So for three units of different frequency it will be 150 thousand euro.

The onset of phases between the different frequencies of the power sources is important and a matter of common sense, some ideas are worthwhile to try.

Overall costing of the experiments

The time to execute the experiments after all preparations is a year added by a year to set up the contracts and discussions with manufactures.

Manpower one academic, two years and one year for a technician. Rental of laboratory place plus all necessary equipment. Costs 250 000 euro's. Power sources between 25 to 50 thousand per unit and specially manufactured and calibrated plus some spare units, not power supplies but klystrons, say 150 000 euro's. In total around four or five hundred thousand, unforeseen including such as additional time due to any delays. Which is only for the first part of the experiment, the vertical penetration with electromagnetic power. In case of success in the first phase at least another year for experiments should be added and slightly better adapted klystrons could needed.

When echo effects are realized and successful, the next phase is the experiment to minimise the resonance power due to state of conjugation by levitating the suspended antenna array.

The wide band detection around the 9 mm wavelength
In consideration of the set up for the propagation experiments, wide range echo detection around 9 mm can be difficult because only forward energy propagation drives the generation of the 9 mm waves. Some energy loss along propagation power beam is possible by putting additional energy to it but it is a lossless resonance process in the medium. So no reflection of 9 mm in the backward direction.

The outlook for the dissipation in the propagation experiments at 7.74 and 6.0 cm becomes easier to understand. Take a tube of say 50 cm diameter with length's between 1 to max 5 meters. Forward detection of 9 mm either in the medium or/and along the tube wall. The medium can be water but the 6.0 and 7.74 or 9.5cm driving energies are perhaps too easy converted into solely dissipation energy. Other options have to be analyzed as wet sand, plastic and /or biologic grains, all kinds of materials, and for each the 9 mm detection should be tested. Still the driving powers need to be for a max of 40 Kw at 20 milli sec (think of a max surface density of 1Kw per cm^2). Obviously only if propagation of the 9mm detection is discovered, the next stage for the experiments of blocking entanglement can begin with different experimental options. Say four power sources for (9.487 and 7.74) and (6 and 6.71) cm with relative low power needed, say a max 5 Kw at 20 mill sec. Echo detection at in the mm range can be 4.5, 9.0, 15 mm. Sharp cut off of source powers in less than 5 micro sec. The echo signal power should be proportional to the input power pulses due to the blocking resonance.

Second scientific proposal for an experiment
A reminder for mind over matter for future generations as a consequence of the weak gravity condition
Levitation of a person by him /herself or with the aid of a group of people by mind over matter. Needed is deep concentration in meditation by people trained and adapted to do this unusual state of mind. The experiment should be monitored and controlled under scientific conditions. Ref 4

References
Ref 1: substitution angle: https://gravitation-levitation-physics.org/
Ref 2: https://vixra.org/abs/2305.0078 Calculations with solar parameters
Ref 3: Website: https://gravitation-levitation-physics.org/
Ref 4: https://vixra.org/abs/2309.0046 Genesis completed! The steady state qubit universes.