New Proof for the Model of the Gravitational Force and its Source Utilising Magnetic Field Experiment

Gh. Saleh

Saleh Research Centre, Netherlands

To validate the model and structure of gravity waves, we utilise a simple experiment that was conducted to calculate the frequency of the magnetic field and investigate its nature.

1. Calculation of Frequency and Energy of the Magnetic Fields

To calculate the frequency of the magnetic field, we use the following experiment: two annular magnets with identical characteristics are placed facing each other with the same poles. The upper magnet is in equilibrium thanks to the interactions between the force of its weight and the magnetic force of the lower magnet. Therefore, the gravitational potential energy of the upper magnet must be equal to the magnetic energy of the lower magnet. Then we measure the distance between the two magnets.

By multiplying this distance by the mass and the gravitational constant of the Earth (g =10), we obtain the gravitational potential energy of the upper magnet, which is equal to the magnetic energy of the lower magnet. On the other hand, we consider the magnetic energy of the magnet as “nhϑ” and deal with the calculation of the frequency of the magnetic field of the magnet.

So:

$$E_B = mgd = nh\vartheta$$

The above tests are repeated by different magnets.

Case 1: Both the masses of the lower and upper magnets are 2.5 grams. The distance between the two magnets is 2.30 cm. So:

$$E_{B_1} = m_1 g d_1 = n_1 h \vartheta_1 \Rightarrow$$
$$E_{B_1} = 2.50 \times 10^{-3} \times 10 \times 2.30 \times 10^{-2} = 6.62 \times 10^{-34} \times n_1 \vartheta_1 \Rightarrow$$
$$n_1 \vartheta_1 = 0.87 \times 10^{30}\ Hz$$

Case 2: Both the masses of the lower and upper magnets are 5 grams. The distance between the two magnets is 2.32 cm. So:

$$n_2 \vartheta_2 = 1.75 \times 10^{30}\ Hz$$

Case 3: Both the masses of the lower and upper magnets are 7.5 grams. The distance between the two magnets is 2.33 cm. So:

$$n_3 \vartheta_3 = 2.64 \times 10^{30}\ \text{Hz}$$

We continue the same process and we have obtained the result that present in table 1. Based on the above experiment, it can be concluded that:

$$n\vartheta = A \times 10^{30}\ Hz$$

In which 10^{30} is the constant and there is a variable coefficient "A"

The Results of Experiment A

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
m (g)	2.50	5.00	7.50	10.00	12.50	15.00	17.50
d (cm)	2.30	2.32	2.33	2.33	2.33	2.32	2.33
$n\vartheta$	0.87E+30	1.75E+30	2.64E+30	3.52E+30	4.40E+30	5.26E+30	6.16E+30
E_B (j)	5.76E-04	1.16E-03	1.75E-03	2.33E-03	2.91E-03	3.48E-03	4.08E-03
E_B/m (j/g)	2.30E-04	2.32E-04	2.33E-04	2.33E-04	2.33E-04	2.32E-04	2.33E-04

Table 1

Note 1:

As we know, force lines or magnetic fluxes are invisible and on the other hand, they pass through objects. Considering these characteristics, we can certainly say that the frequencies of magnetic fluxes are obviously higher than those of visible waves. It can therefore be deduced that the start of the frequency range of the magnetic field must be 10^{15} Hz. So, in this test the amount of "n" is also around 10^{15}.

We repeat the experiment with 45 grams magnets and the following results is obtained (Table 2):

The Results of Experiment B

	Case 1	Case 2	Case 3
m (g)	45.00	90.00	135.00
d (cm)	3.72	3.62	3.71
$n\vartheta$	25.3E+30	49.2E+30	75.7E+30
E_B (j)	1.67E-02	3.26E-02	5.01E-02
E_B/m (j/g)	3.72E-04	3.62E-04	3.71E-04

Table 2

In this experiment, we reach similar results. Therefore, it can be said that logically the beginning of the magnetic wave frequency range should be 10^{15} Hz, and thus the start of the "n" range is also 10^{15}. On the other hand, as you can see, the value of distance "d" is between 2.30 and 3.72 cm. And according to the formula obtained for the magnetic energy of the magnet ($E_B = mgd$) and averaging the energies obtained in the experiments per gram of magnet, the energy of per gram of ordinary laboratory magnet can be considered approximately equal to $3\times10^{-4}\ j/g$. We call that as **"Saleh Energy Constant" ($\boldsymbol{S_e}$)**.

$$\boldsymbol{S_e} = 3 \times 10^{-4}\ j/g$$

So, the amount of magnetic energy of ordinary laboratory magnet is generally equal to:

$$E_B = \boldsymbol{S_e}.m \quad j$$

Where, "m" is mass in units of grams. Therefore, by measuring the mass of a magnet and using this formula, the energy of the magnet can be easily obtained.

Note 2:

I. Considering that $n\vartheta$ always has the constant part of 10^{30}, by increasing the magnet mass, the coefficient of $n\vartheta$ will change and its value will be always constant, 10^{30}.
II. Although by increasing the mass of magnet, the number of magnetic fluxes "n" and magnetic field frequency will increase but this increase is such that the frequency remains in range of 10^{15} to 10^{16} Hz.

Now we will study the dependency of magnetic frequency ϑ and the number of magnetic fluxes "n" to the mass. As it was said before, the frequency will remain in the range of 10^{15} to 10^{16} Hz. So, the number of magnetic fluxes can be defined as follow:

$$n = a \times \vartheta$$

Where "a" is between "1" and "10", therefore:

$$n\vartheta = a \times \vartheta \times \vartheta = a\vartheta^2$$

$$1 \leq a \leq 10$$

On the other hand, we obtained:

$$E_B = \boldsymbol{S_e}.m = nh\vartheta$$
$$\boldsymbol{S_e} = 3 \times 10^{-4}\ j/g$$

$$E_B = \boldsymbol{S_e}.m = 3 \times 10^{-4} \times m = nh\vartheta = ha\vartheta^2 \Rightarrow \vartheta = \sqrt{\frac{3 \times 10^{-4} \times m}{ah}} = \sqrt{\frac{m}{a}} \times 0.67 \times 10^{15}\ \ Hz$$

$$1 \leq a \leq 10$$

$$\frac{1}{10} \leq \frac{1}{a} \leq 1$$

By averaging $\frac{1}{a}$ and putting it in the relation, we have:

$$\vartheta = \sqrt{0.55 \times m} \times 0.67 \times 10^{15} = 0.5 \times 10^{15} \times \sqrt{m} \;\; Hz$$

The constant value is called **"Saleh Frequency Constant" (S_ϑ)** and we have:

$$\boldsymbol{S_\vartheta} = 0.5 \times 10^{15} \;\; Hz \Big/ g^{\frac{1}{2}}$$

$$\vartheta = \boldsymbol{S_\vartheta}.\sqrt{m} \;\; Hz$$

Where "m" is the mass of the magnet in units of grams. Therefore, by measuring the mass of the magnet and using this formula, the magnetic frequency of the magnet can be easily obtained. As a result, the energy and frequency of the magnets can be easily calculated by these two formulae:

Magnetic Energy: $E_B = S_e.m$ (j)

Magnetic Frequency: $\vartheta = S_\vartheta.\sqrt{m}$ (Hz)

Note 3:

I. It should be noted that as it was said previously, by increasing the magnetic mass, in addition to the frequency, the number of magnetic fluxes will increase accordingly. But considering the limitations of the frequency range of the magnetic field it can be concluded that although the magnetic frequency of magnets is dependent on mass, but it has limitations and always will be remained in an approximate range of 10^{15} to 10^{16} Hz (Fig. 1). But the magnetic field energy of magnets, considering the wide range of variations for n, may have lower limitations.

II. The accuracy of these formulae is about 97%.

2. Nature and Structure of Magnetic Fluxes

According to relative penetrability of magnetic fields and its special and beautiful state, it can be said that magnetic waves are not single photons. Rather, they are a group of photons that are joined together in a chained state. For better conception it can be said whenever we bring two like poles of the magnet closer to each other, the repulsion effect is seen, as if we have placed two invisible springs between them and we are squeezing the springs. These springs are the same as continuous magnetic fluxes.

Due to this special form, it can be said that the structure of the magnetic field is similar to the structure of gravity flux and chained photons. Since in this model, toward the linear direction, the fluxes are firm and steady and to the perpendicular direction, they have curvature property. These magnetic fluxes are made of photons, but the placement and structure of these photons are interconnected like chains. In fact, magnetic fluxes bend and compact and again return to their original shape. So, it can be said that the magnetic field fluxes, similar to gravity fluxes, are made of interconnected like photons. In order to facilitate a more precise understanding of the structural analogy between gravitational and electromagnetic waves, a calculation of the gravitational wave frequency will be performed, followed by an examination of its fundamental structure and properties.

3. Calculation of Gravity Frequency in Solar Systems

It is evident that all stars and planets revolve around each other in orbits, influenced by gravitational force lines (gravitational fluxes) that exist between them. These forces create stability and balance among celestial objects. In fact, the kinetic energy of a planet is constantly interacting with these gravitational force lines, leading to a state of equilibrium. The kinetic energy of the planets is always equal to the energy of the gravitational waves. This relation helps maintain the planets in their orbital paths, allowing them to travel at specific velocities and along defined orbits. As a result, the kinetic energy and gravitational energy must be equal.

$$^{1}/_{2}\,mv^2 = nh\vartheta$$

$$\Rightarrow \vartheta = \frac{mv^2}{2nh}$$

where "n" is the number of force lines passing through the surface of the planet. So, we have:

$$n = \frac{S}{S_p} = \frac{4\pi r^2}{4\pi r_p^2} = \frac{r^2}{r_p^2}$$

$$\vartheta = \frac{r_p^2}{2h} \times \frac{mv^2}{r^2}$$

$$\frac{r_p^2}{2h} = \text{constant} \cong \frac{1}{10}$$

And finally, the gravitational frequency will be equal to:

$$\vartheta = \frac{mv^2}{10r^2} = \frac{E_k}{5r^2}$$

Important notes:

Although it appears that the properties of the central star are not considered in the above relation, it should be noted that the effect of the central star's force influences the planet's speed (v). In fact, it can be said that a planet's velocity results from the force exerted by the central star. Gravitational waves can be regarded as missing, strong, abundant, and effective waves, yet they are imperceptible. It should also be noted that gravitational waves can carry a significant amount of energy and performance, similar to the process of converting hydrogen to helium in stars. The energy contained in these gravitational waves could potentially be utilised on Earth as an energy source. By comparison, the gravitational energy between Earth and the Sun is equivalent to billions upon billions of the energy released by an atomic bomb (without actually detonating one). Now, according to the latest formula, we can calculate the frequency of gravity for the Earth:

$$\vartheta = \frac{mv^2}{10\,r^2} \Rightarrow \vartheta_{Earth} = \frac{(5.97 \times 10^{24})(2.98 \times 10^4)^2}{10(6.37 \times 10^6)^2} \Rightarrow \vartheta_{Earth} \cong 1.42 \times 10^{19} Hz$$

Based on the above equation, the amount of gravitational frequency calculated for the planets of the solar system should be as follows:

Gravitational Frequency Table of Our Solar System

Planets	Frequency (Hz)	Mass (Kg)	Radius (m)	Speed (m/s) around the sun
Mercury	1.35E+19	3.30E+23	2.44E+06	4.74E+04
Venus	1.77E+19	4.87E+24	6.05E+06	3.50E+04
Earth	1.42E+19	5.97E+24	6.37E+06	2.98E+04
Mars	3.50E+18	6.42E+23	3.39E+06	2.40E+04
Jupiter	7.21E+18	1.90E+27	6.99E+07	1.31E+04
Saturn	1.71E+18	5.68E+26	5.82E+07	9.68E+03
Uranus	6.78E+17	8.68E+25	2.54E+07	6.80E+03
Neptune	5.41E+17	1.02E+26	2.46E+07	5.43E+03
Moon	2.34E+18	7.34E+22	1.74E+06	2.98E+04

Plank Constant (Js)	6.63E-34

Photon radius (m)	1.20E-17

Table 3. gravitational frequency of solar systems

And according to the results, the position of gravitational waves in the electromagnetic waves spectrum will be as follows:

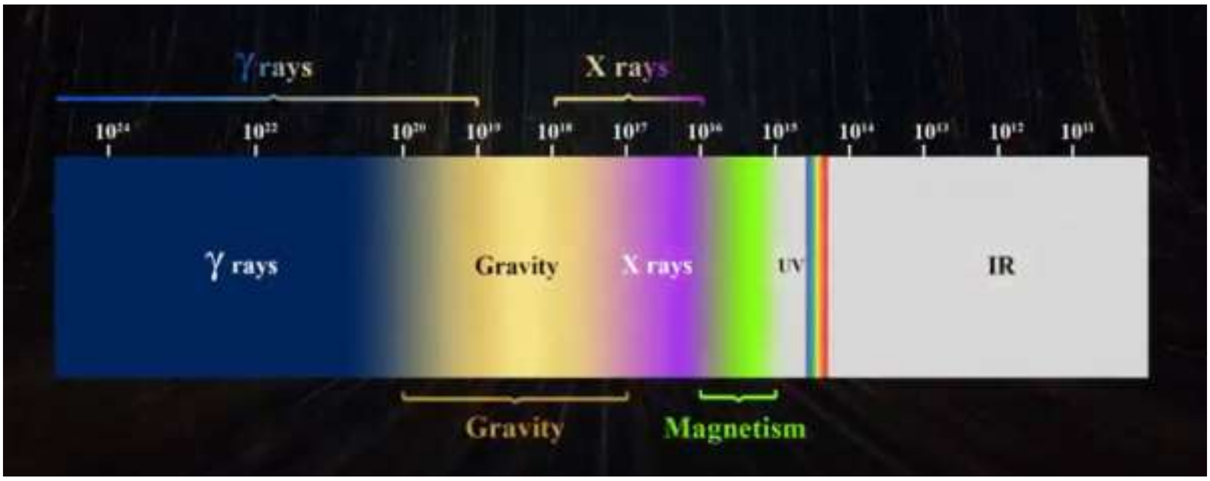

Figure 1. modified electromagnetic spectrum diagram

4. Structure of Gravitational Force Lines (Gravitational Fluxes) and Its General Model

The planets have a strong, stable, and coordinated relationship with their suns in such a way that they travel without slight differences in their specific orbit and period (having differences shows inconsistency and irregularity). For example, the number of fluxes that pass through the Earth is 10^{46}. Regarding the size of the sun's surface relative to the Earth, actually a set of 10^{46} force lines (gravitational fluxes) which pass through the Earth, spin and go to the Sun and return again. Given that a photon has both external and internal motions, and the frequency of electromagnetic waves is in the range of 10 to 10^{20} Hz, the higher the frequency of electromagnetic waves, the more their external motion tends to zero. So, in fact, in very high frequency waves, the external motion of the wave merges with the internal motion (or converges). As a result of this adjoining, each photon forms a ring bond with the other photon. So, the force lines or gravitational flux are a wide loop from one photon to another.

As the nuclei of the suns are so compact and hot, and the atomic structure cannot be imagined for it, therefore, in the suns, a bunch of photons with small external rotational motion are separated from the electrons. In fact, it can be said that the force lines or gravitational fluxes are a kind of continuous chain state of photons.

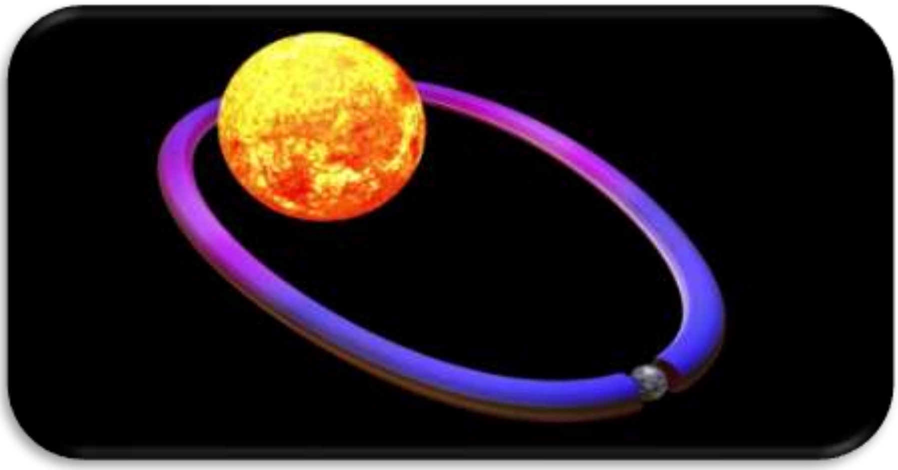

Figure 2. The general shape of the gravitational field lines between a star and its planets.

It should be noted that since the gravity extends throughout the whole universe and gravity between the suns and all objects in the universe is conceivable, so these force lines (gravitational fluxes) continue to the end of the universe.

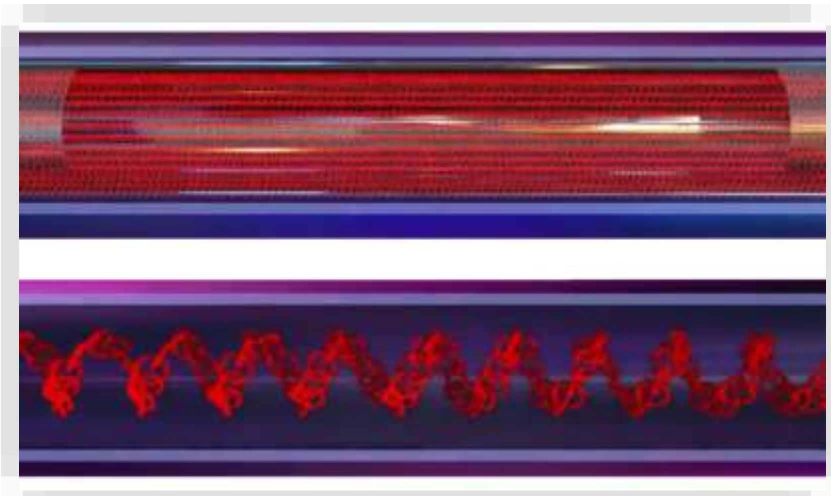

Figure 3. Photons are interconnected in a ring-to-ring feature and travel between the star and the planet.

The interesting thing about this model is that the gravitational fluxes pass through everything at the speed of light, they are invisible, and the vertical effect along the flux is so strong that their

flexibility in the perpendicular direction is very high. This means that it is inflexible in the direction of the line between the star and the planet, but flexible in the perpendicular direction.
10^{46} is the number of photons that pass through the Earth's surface in an ideal condition. But due to possible empty spaces between the fluxes, this number will be reduced to about 10^{45}. As a result, it can be said that, in reality, the gravitational frequency is less than this value. For example, the actual gravitational frequency of the Earth should be on the order of 10^{18} or 10^{19} Hz.

References:

[1] Saleh, Gh. "Calculation of Gravitational Wave Frequency in the Universe." Saleh Theory, 08 Jun. 2025, https://www.saleh-theory.com/article/calculation-of-gravitational-wave-frequency-in-the-universe

[2] Saleh, Gh. "A New Insight into the Structure and Mechanism of Gravity." *24th Eastern Gravity Meeting*. 2025.

[3] Saleh, Gh. " A New Perspective on the Structure, Model, and Mechanism of Gravity." *41st Jim Isenberg Pacific Coast Gravity Meeting*. 2025.

[4] Saleh, Gh. "Proving the Source of Gravity Using the Big Bang Phenomenon and Magnetic Phenomena." *APS Meeting Abstracts*. 2024.

[5] Saleh, Gh. "Gravity and Its New, Marvelous and Revolutionary Discoveries." *Frontiers in Cosmology and Gravitational Physics 2024* (2024): E1.

[6] Saleh, Gh. "Magnetic-Gravity." *TEXAS symposium 2024*. 2024.

[7] Saleh, Gh. "New Explanation for the Source of Gravity and Its Fluxes." *APS March Meeting Abstracts*. Vol. 2024. 2024.

[8] Saleh, Gh. "New and Fundamental Discoveries About Gravity." *APS Meeting Abstracts*. 2023.

[9] Saleh, Gh. "New Explanation for Structure of Gravity and Its Model by Using Magnetic Field Models." *23rd Eastern Gravity Meeting 2023*. 2023.

[10] Saleh, Gh. "New Discoveries about the Magnetic Fields." *APS Meeting Abstracts*. 2023.

[11] Saleh, Gh. "A New Explanation for the Structure of Gravity and Magnetic Fields." *APS Meeting Abstracts*. 2023.

[12] Saleh, Gh. "A new explanation for the nature, structure, etc. of gravity in the universe." *The 84th Japan Society of Applied Physics (JSAP) Autumn Meeting 2023*. 2023.

[13] Saleh, Gh. "How gravity is created, its models, structure, performance and equations, etc." *Virtual Conference on Condensed Matter Physics (ISCMP2023*. 2023.

[14] Saleh, Gh. "Calculation of the frequency and energy quantity of the magnetic field by the scientific experiment." *The 84th Japan Society of Applied Physics (JSAP) Autumn Meeting 2023*. 2023.

[15] Saleh, Gh. "New Marvelous and Revolutionary Discoveries About Gravity." Saleh Theory, 08 Nov. 2023, https://www.saleh-theory.com/article/new-marvelous-and-revolutionary-discoveries-about-gravity

[16] Saleh, Gh. "Calculation of the Frequency and Energy of Ordinary Magnets." *APS Texas Sections Spring Meeting Abstracts*. 2022.

[17] Saleh, Gh. "New Discoveries about the Magnetic Fields." Saleh Theory, 04 Jan. 2022, https://www.saleh-theory.com/article/new-discoveries-about-the-magnetic-fields

[18] Saleh, Gh. "New Calculation of Gravity Frequency in Solar Systems." *APS Meeting Abstracts*. Vol. 2021. 2021.

[19] Saleh, Gh. "New Discoveries About Gravity?!!! 2." Saleh Theory, 12 Dec. 2021, https://www.saleh-theory.com/article/new-discoveries-about-gravity-2

[20] Saleh, Gh. "New Discoveries About Gravity?!!!." Saleh Theory, 07 Nov. 2021, https://www.saleh-theory.com/article/new-discoveries-about-gravity