Experiment for Theory of Special Connectivity

Prashant[#1]
[#]*Physics Tutor at Chegg. Inc.*
Meerut, Uttar Pradesh, India - 250001

Abstract

An experiment has been proposed to verify the theory of special connectivity [1]. According to this theory, every mass has a web of gravitational waves around it whose smallest element is kaushal constant [2]. According to our convention, static mass has a positive charged web of GWs around it and moving mass has a negative charged web of GWs around it. As it is a well known fact that opposite charges attracts each other, an experiment has been accidentally performed by the author. Coulomb's law [4] has been verified using Gauss's law [6].

Keywords - *Experiment, Theory of special connectivity, Kaushal constant; Law of attraction, Coulomb's law, Gauss's law*

I. THEORY OF SPECIAL CONNECTIVITY

According to this theory, Charge on a web of gravitational waves [3] is given by:

$$q = \sqrt{\frac{K}{R}} \qquad (1)$$

Where q is charge, K is kaushal constant and R is resistance.

Kaushal constant is given by:

$$K = \frac{mGh}{ga^2}$$

Where m is mass, G is gravitational constant, h is plank's constant, g is acceleration due to gravity and a is the maximum vertical distance from centre of gravity of the object.

According to convention, static mass has +q charge and moving mass has –q charge of gravitational waves around it.

II. EXPERIMENTAL LAYOUT

Let m_1 and m_2 be the two masses. m_1 is static and thus having a positively charged web of GWs around it. m_2 is moving and thus having a negatively charged web of GWs around it. As soon as mass m_2 reaches near m_1 the force of attraction will came into action.
According to Coulomb's law [4], force of attraction is given by:

$$F = \frac{1}{4\pi\varepsilon_o}\frac{q_1 q_2}{r^2} \qquad (2)$$

Where F is the force of attraction, q_1 and q_2 are the measurable charges, ε_o is the permittivity of the free space and r is the distance in between the charges.

From equation 1 in 2, we get,

$$F = -\frac{1}{4\pi\varepsilon_o}\frac{\sqrt{K_1 K_2}}{Rr^2} \qquad (3)$$

Where K_1 and K_2 are the kaushal constants of mass m_1 and m_2 respectively, R is air resistance and r is the distance in between masses. As r tends to zero, F tends to infinity. Meaning if the moving mass passes the static mass as near as possible (without touching) then the force of attraction will be maximum.

III. ACCIDENTAL EXPERIMENT

A cluster of thread is hanging in between the road. Assume that there is no air-current. Author is driving two-wheeler and passes by the cluster of thread. The cluster displaced towards the author and in order to bypass any accident author tries to dodge the cluster. Though he was unsuccessful and got his head struck with the divider of the road and. he got injured.

IV. VERIFICATION

Let us now apply Gauss's Law [6] in order to verify equation 3.

According to this law, total electric flux from any surface is equals to ratio of the charge to permittivity of free space.

Mathematically,

$$\int E.dS = \frac{Q}{\varepsilon_o} \qquad (4)$$

Let us consider a spherical Gaussian surface around the thread. Hence equation 4 reduces to:

$$E[4\pi r^2] = \frac{Q}{\varepsilon_o} \qquad (5)$$

Where r is the distance between author and thread cluster and Q is the charge enclosed by the cluster.

Thus E becomes:

$$E = \frac{1}{4\pi\varepsilon_o}\frac{Q}{r^2} \qquad (6)$$

Also, Force of attraction in between author and thread cluster is $F = qE$ (7)

From 6, 7 and 1, Force becomes

$$F = -\frac{1}{4\pi\varepsilon_o}\frac{\sqrt{K_1 K_2}}{Rr^2} \qquad (8)$$

Equation 8 matches exactly with equation 3 and negative sign appears due to our convention of static and moving masses.

Let us now calculate the force of attraction in between the author and the cluster by using equation 3 or 8.

V. TEST DATA

Let us put some test data into the equation 3 derived above.

A. Author

Mass (m_1) of the author is about 77 Kg and maximum vertical distance from the centre of gravity of the author is 0.66 m. Hence, kaushal constant (K_1) of the author becomes $7.988 \times 10^{-43}\ Kg\ m^2\ s^{-1}$.

B. Cluster of Thread

Mass (m_2) of the cluster is about $2.45 \times 10^{-3}\ Kg$ and maximum vertical distance from the centre of gravity of the cluster is 0.055 m. Hence, kaushal constant (K_2) of the cluster becomes $3.660 \times 10^{-45}\ Kg\ m^2\ s^{-1}$.

C. Other Parameters

Air resistance is 336 ohms and distance in between cluster and author is assumed to be 0.01 m. Mass of earth is $5.972 \times 10^{24}\ Kg$ and radius of earth is $6.371 \times 10^{6}\ m$.

VI. FORCE OF ATTRACTION

Since $m_2 >> m_1$,
Using the above defined test data in equation 3, we get:
$F = -1.446 \times 10^{-32}\ N$

[6]Gauss's law. (2019, January 24). Retrieved from https://en.wikipedia.org/wiki/Gauss's_law

It is negative because the cluster moved towards the author. As the distance in between the gravitational charges tends to zero the force of attraction tends to infinity.

VII. FORCE OF GRAVITY

Force of gravity [5] is given by:
$F = \frac{K_1 K_2}{m a^3}$
Where m is effective mass and a is effective radius. Since experiment was performed on earth hence effective mass and radius will be that of the earth.

Hence, force of gravity becomes:
$F = 1.8931 \times 10^{-132}\ N$

It is easily noticeable that force of attraction is very much greater than the force of gravity.

VIII. CONCLUSION

Theory of special connectivity has been experimentally verified. Static mass has positively charged web of GWs around it and moving mass has negatively charged web of GWs around it. The experiment was performed accidentally and the author was hospitalised for two nights.

REFERENCES

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