# Planetary Motion - Flat Potential Field

## Orlov SA*

Petrozavodski universitet, Russia

**\*Corresponding author**

Sergey A. Orlov, Petrozavodski universitet, Russia,
E-mail: ion@sampo.ru

## Abstract

Another standard of beginning and the idea of the activity of gravity powers are proposed. Powers of general fascination have plane-balanced headings. On this premise, it becomes conceivable to reevaluate specific consistencies in innate science. The new rule of attractive energy will permit to make sense of actual mysteries, to further develop techniques for logical examination and a few mechanical cycles.

## Keywords

Theory vortex gravitation, cosmology and cosmogony. Celestial mechanics

## Introduction

As is known, the organizer behind the hypothesis of world attraction I. Newton [1] pointed the wellspring of attractional powers to material bodies.

In 1915, 1916 Einstein proposed an overall hypothesis of relativity [2]. In this hypothesis, gravitational impacts are caused not forcibly cooperation of bodies and fields, but rather by twisting of room time continuum itself. Distortion is related with the presence of mass-energy.

These speculations have one general condition - the powers of fascination are made by the mass of bodies. Based on this condition, the end follows: the powers of gravity act midway evenly. That is, they decline comparatively while creating some distance from the body every which way.

In the creator's hypothesis of vortex attraction [3] it is affirmed that the powers of fascination act level evenly concerning any vast article.

## The Vortex Gravitation

The hypothesis of vortex gravity, cosmology and cosmogony depends with the understanding that gravity of, every divine body and rudimentary particles are made by etheric vortices (twists). The size of bodies (frameworks of bodies) and comparing vortices can vary by a boundless worth. The biggest etheric vortex that an individual can notice is the general tornado, the littlest - the nuclear hurricane.

The orbital speeds of the ether in every vortex decline toward the path from the middle to the fringe, as per the backwards square regulation. As per the Bernoulli standard, the adjustment of orbital speeds causes a conversely corresponding change (expansion) in tension in the ether. The strain angle makes the powers of vortex gravity and pushes the substance (body) into the zones with the least tension, that is to say, in the focal point of the suspension bar. This example works similarly in ethereal vortices of any size.

A vortex can pivot just in one plane. Subsequently, the diminishing in the tension of the ether happens in the plane of revolution of the ether. In light of Archimedes' regulation, all bodies are driven into the plane where the least tension happens. Hence, the powers of gravity act plane-evenly and forsaking the traditional model of the focal symmetric activity of the powers of gravity is fundamental.

The ether is a little thick gas that saturates all bodies (substances), with the exception of superdense ones. These superdense bodies are the nucleons of particles. Thusly, the ether can push these superdense bodies.

In the hypothesis of vortex gravity, the Navier-Stokes condition for the movement of a thick liquid (gas) was utilized to decide the strain slope in an ether vortex.

$$\tilde{n}\left[\frac{\partial}{\partial t} + \vec{v}\cdot \text{grad}\right]\vec{v} = \vec{F} - \text{grad}\,P + \varsigma\ddot{A}\vec{v}$$

(1)

V - velocity vector of the ether,

P - ether pressure,

**ŋ** - viscosity.

In the case of utilizing barrel shaped organizes, considering the outspread balance vr=vz=0, v□=v (r), P=P (r) the condition can be written as a framework

$$\begin{cases} -\dfrac{v(r)^2}{r} = -\dfrac{1}{\tilde{n}}\dfrac{d\,P}{d\,r} \\ \varsigma\cdot\left(\dfrac{\partial^2\,v(r)}{\partial\,r^2} + \dfrac{\partial\,v(r)}{r\,\partial\,r} - \dfrac{v(r)}{r^2}\right) = 0 \end{cases}$$

(2)

# International Journal of Clinical and Medical Case Reports

After the changes, a condition is acquired for deciding the gravitational powers in the ether vortex:

$$F = V_n \times \rho \times v_e^2/r \quad (3),$$

with the following dependence $v\_e \sim 1/\sqrt{r}$ where
Vn - volume of nucleons in the body that is in the orbit of a torsion with a radius of – r
$\rho$ = 8.85 x 10-12 kg / m3 - ether density [4]
ve - speed of the ether in the orbit r
r - the radius of the considered orbit of the ether vortex
Replace the volume of nucleons in equation (3) by their mass, using the well-known dependence:

$$V_n = m/\rho_n, \quad (4) \qquad \text{where}$$

$\rho_n \sim 10^{17}$ kg / m3 - density, constant for all nucleons.
m - mass of nucleons in the body
Substituting (4) into (3), we obtain

$$F_g = m/\rho_n \times \rho \times (v_r^2)/r = 10^{-28} \times m \times (v_r^2)/r \quad (5)$$

Note. With the help of vortex gravity equations (3) and (5), gravitational forces can be calculated that act only in the plane of the vortex (torsion). To determine the attractive forces at any point below, additional studies are presented.

**Assurance of Forces of Gravitation in Space**

As in known, the planets rotate around the sun in an oval with a little unusualness.
This reality can be made sense of from the place of vortex gravity. Furthermore, the curved direction of the planets will permit us to compute the gravitational power in a three-layered model.
The justification behind the presence of "compression" of planetary circles is the tendency of the plane of these circles to the plane of the sun based, gravitational twist, which is demonstrated by the accompanying circumstances.
As is known, the planes of orbital movements of all planets are situated with little deviations from one another. Thusly, the planes of the circles of the planets have a tendency to the plane of the sun oriented gravitational twist, where the best gravitational power follows up on each circle, and they (planets), in their orbital movement, in this manner cross the sun based twist at two places. These marks of convergence are the focuses of perihelion and aphelion.
In aphelion and perihelion, the power of sun oriented gravity follows up on the planets with the biggest worth in this circle and, subsequently, the circle of the planet has the greatest shape. At the point when the planet exits (redirects) from the plane of the sun based twist, the gravitational powers decline, and the direction of the planets "fixes". A comparable pattern of variety of gravitational powers and direction of movement is rehashed for every planet in every upheaval around the Sun. The more the direction of upset of the planet strays from the focal plane of the sun oriented twist, the more the gravitational powers here decline. Thusly, the circle should be more "compacted". A steady, cyclic variety of these powers

makes the direction of the flow curved.
With huge tendencies and high speeds, the satellite's circle (shooting star, comet) gains the direction of a hyperbola or parabola. In this manner, the heavenly body, once surrounding the Sun, leaves the gravitational field of the sun powered twist for eternity.
In the hypothesis of vortex gravity [3] it is demonstrated that the parity of the planet's circle relies upon the point of tendency of the orbital plane of the thought about planet to the plane of the gravitational sun oriented twist. This reliance has the structure:

$$K = b/a = \cos\beta \quad (6), \text{ where}$$

K - coefficient of compression of the orbit of the celestial body
a - the length of the semimajor axis of the planet's orbit
b - the length of the minor semiaxis of the planet's orbit
$\beta$ - the angle of inclination of the planet's orbital plane to the gravitational plane of the solar, etheric vortex (Figure 1).
Os - lateral projection of the orbit of the etheric solar torsion
Op - lateral projection of the planet's orbit
Z - axis of rotation of the torsion bar
O - projection of the line of intersection of the orbit of planets with a gravitational orbit
Calculations [3] found that the forces of vortex gravity decrease as the distance (s) from the plane of the torsion (in the direction of the torsion axis) is inversely proportional to the cube of this removal - 1/s3.
In an arbitrary arrangement of the point under study, the force of the vortex gravity is determined (taking into account Equation 3) as:

$$F_{gv} = F_{gn} \cos^3\beta = V_n \times \rho \times v_e^2/r \times \cos^3\beta \quad (7) \text{ where}$$

$\cos 3\beta = Kg$ - the gravitational coefficient
Fgv - the force of gravity at an arbitrary point
Fgn - gravitational force in the plane of the torsion
The location of the plane of the gravitational torsion in space can be determined by the coordinates of the perihelion and aphelion of all celestial bodies that turn in this plane.

**Proof of Plane Gravitation**

In the author's article [3], the calculation of the gravitational forces acting on the planet Mercury and Pluto was made during their location in the orbit at the apex of the small semi-axes. At these points, the orbits of the planet deviate maximally from the plane of the solar gravitational torsion. The calculation was made based on the equation of universal gravitation of Newton and the equation of vortex gravitation (Equation 7). The results obtained were compared with centrifugal forces at these points
**Note.** Centrifugal forces can be calculated as accurately as possible and they are always equal to gravitational forces. Therefore, centrifugal forces can be used as an indicator of the accuracy of the results in determining the gravitational

# International Journal of Clinical and Medical Case Reports

forces.

The distances and velocities of celestial bodies are taken on the basis of the astronomical calendar [5]

## Pluto

a) The length of the semimajor axis of the Pluto orbit a = 5906.375 x 106 km

b) The length of the semi-minor axis is = 5720.32 x 106 km

c) The gravitational coefficient kg = b 3 / a 3 = cos 3 β = 0.9084

d) The distance from the Sun to the summit of the minor semiaxis of Pluto's orbit is d = 5907,963 x 106 km

e) The radius of curvature at the apex of the small semiaxis is Rb = a2 / b = 6098.48 x 106 km

f) The orbital velocity of Pluto at the apex of the small semiaxis is Vb = 4.581 km / s

Centrifugal forces at the apex of the small semiaxis on the basis of the above characteristics:

g) Fc = 0.00344 Mp, where Mp is the mass of Pluto

The forces of solar gravity at the same point (according to Newton's classical model)

h) Fgn = 0.00382 Mp (deviation from centrifugal forces + 11.1%)

The forces of vortex gravity taking into account the gravitational coefficient (equation 7)

i) Fgv = Fgn x Kg = 0.00382 x 0.9084 = 0.00347 Mp (discrepancy + 0.87%)

## Mercury

a) The length of the semimajor axis of the orbit of Mercury a = 57.91x 106 km

b) The length of the semi-minor axis b = 56.67x106 km

c) The gravitational coefficient kg = b3 / a3 = cos3 β = 0.9372

d) The distance from the Sun to the summit of the minor semiaxis of the orbit of Mercury

 d = 58,395x106 km

e) The radius of curvature at the apex of the small semi-axis is Rb = a2 / b = 59,177x106 km

f) The orbital velocity of Mercury at the apex of the small semiaxis is Vb = 46.4775 km / s

Centrifugal forces

g) Fc = 36.503 Mm, where Mm is the mass of Mercury

Gravitational forces:

According to Newton, Fgn = 39.09 Mm, (discrepancy + 7.1%)

According to the theory of vortex gravity, Fgv = 39.09 x 0.9372 x Mm = 36.63 Mm (discrepancy + 0.35%)

It is clear that the calculation of the theory of vortex gravity is an order of magnitude more accurate than the classical method and in accuracy corresponds to the accuracy of astronomical measurements.

In addition, on the basis of equation (7), it is obvious that for large deviations of the considered point from the gravitational plane, the calculation of the gravitational forces by the classical equation will lead to an absurd result.

## End

Acknowledgment of the vortex, plate like nature of gravity will make it conceivable to make sense of numerous conundrums in inherent science and, to foster new exploration in science and innovation.

Just the level symmetric activity of the powers of attraction demonstrates the designs of the divine frameworks. Glorious frameworks like planetary frameworks around any star, satellites around planets, universes, are level or circle like molded. Had the powers of gravity acted every which way similarly (as indicated by Newton's hypothesis), then, at that point, these brilliant frameworks would have a circular shape. Pundits can say that attractive energy is comparable wherever on the Earth's surface. They ought to answer that any heavenly body is situated in the focal point of the grandiose twist. The components of divine bodies are a few significant degrees less than the elements of the suspension bars. Hence, in the focal point of the twist, horizontal swirls of the ether make a strain slope in the pivotal bearing almost like the longitudinal heading. Thusly, the powers of gravity nearly climb at the posts, as well as at the equator.

It ought to be noticed that exact estimations have verified that: at the posts, the genuine gravitational power is not exactly determined by the Newton condition. Specifically, as per Newton's condition, the power of gravity at the shafts of the Earth should be F = 9.86m. In light of geodetic gravimetry, the genuine not entirely set in stone by Fp = 9.83m. This worth is 0.3% not exactly the determined worth, yet at the equator hypothetical and trial results are equivalent.

The lopsidedness of the decline in the powers of gravity in the longitudinal and pivotal headings makes sense of the beginning of the tides.

As is known, the earthly tropical plane has a tendency to the ecliptic plane at a point of 23.5 degrees. At the plane of the earth, etheric twist is situated with a slight deviation from the ecliptic. Thusly, each earthbound point (point. An in figure 2) crosses the equator two times per day two times the plane of the vortex revolution of the ether, in which the most extreme power of earthbound gravity acts. Thus, attraction anytime of the earth changes its solidarity two times. This reality causes two times day to day appearance of one or the other elevated or low tides. The clarification of these tides by the gravitational activity of the Moon or the Sun is ridiculous, since any mark of the world's surface is drawn just once each day comparative with these divine bodies. However, there are changes in tides two times everyday! (Figure 2)

P - sidelong projection of the plane of the earth twist.

OO - the hub of revolution of the Earth's suspension bar.

Oe - the hub of Earth's pivot.

Note that point A crosses the plane of the earth twist two times every day.

In the writer's article, [6] computations of actual work have been made, which should be finished in a space departure from Earth to the Moon in two forms. The first is a straight, common way inside the Earth's gravitational twist, the course

# International Journal of Clinical and Medical Case Reports

AS in displayed in figure. 3. The second - bypassing the earth twist, the ABC course.

The actual work consumed by the space apparatus bypassing the earth twist along the ABC course is 26% not exactly the work spent on the immediate course - the course of the AC (Figure 3).

 Note. The previously mentioned level symmetric activity of the powers of gravity can be noticed exclusively at a huge separation from the focal point of the twist, since in the middle there are pivotal vortices of the ether. Accordingly, it is difficult to apply condition 7 to decide the powers of gravity on the outer layer of heavenly bodies.

This article offers a tiny piece of the progressions in the logical comprehension of actual peculiarities. The hypothesis of vortex attraction makes it conceivable to make sense of numerous anomalies in geophysics, in stargazing, nuclear physical science, and different parts of innate science with no inconsistencies.

## References

1. Newton, Sir Isaac. The Mathematical Principles of Natural Philosophy, Volume II. 1729.

2. Albert Einstein. Die Feldgleichungen der Gravitation. Sitzungsberichte der Preussischen Akademie der Wissenschaften zu Berlin: 844-847.

3. S. Orlov. Foundation of vortex gravitation, cosmology and cosmogony. Global journal of science Frontier VA.

4. Atsurovskiy VA. General ether-dynamics. Energoatomizdat. Moscow, Russia. 1990; 278.

5. Gulyaev AP. Astronomy calendar. Cosmosinform. Moscow, Russia. 1993. Page 285.

6. Sergey Orlov On Optimal Trajectory in Space Flight. American Journal of Aerospace Engineering. 2016; 3(2): 6-12.