Why and How Venus Rotates in the Opposite Direction, According the Theory of New Axioms and Laws

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Abstract
The Theory of new Axioms and Laws contains 2 new Axioms and 8 new Laws and is created by the same author. The main axiom claims that an open vortex is always self- accelerating or decelerating (Axiom1). The new Theory claims that planetary bodies and Sun are constructed simultaneously from 2 different vortices: open transverse vortex and open longitudinal vortex This vortices are mutual orthogonal in space (S) and in time (T). They can be self- accelerating or self-decelerating.

The transverse vortices are transversely coiled open accelerating or decelerating vortices. They generate accelerating or decelerating transverse spirals which form the visible bodies of planets and Sun in the Real time-space.

The longitudinal vortices are longitudinally coiled open accelerating or decelerating vortices. Thus they generate accelerating or decelerating longitudinal invisible Gravity Funnels. They form the invisible links between planets and Sun in a Gravity time-space.

Each of inner planet is generated by a corresponding, (paired) Volume Cylindrical Resonator. Thus the planet Venus is generated by a vortex actively pulled by the second Volume Cylindrical Resonator inserted in sphere of Sun. This decelerating transverse vortex is pulled from center of Venus to outward. This causes a longitudinal vortex that is perpendicular to its cross section to be suck in direction from up to the center of Venus (Law 1). Thus is formed the body of Venus as a sphere with dense and cool senter and rare and hot periphery. The second Volume Resonator inserted in sphere of Sun is generated by the transverse vortex that Resonator actively pulls from Venus to its center. This is the reason a longitudinal vortex, perpendicular to Sun's cross section to be suck in from up to inward of Resonator (Law 2).

Thus is formed the first orthogonal pair- between the Venus and Second Volume Resonator in Sun (Axiom 2)
In other side Venus actively sucks up the longitudinal vortex from Saturn. Thus Saturn is generated through the longitudinal vortex, perpendicular to its cross section that Venus actively pulls from center of Saturn up As a result Saturn sucks in transversely from outward to its center of sphere the decelerating transverse vortices (Law 2). It is formed the body of Saturn as a sphere, dense and warm in the center and rare and cold at the periphery.

Thus is formed the second orthogonal pair- between the Venus and Saturn (Axiom 2)
The input decelerating transverse vortices around Saturn form many rings. The decelerating transverse vortices in direction from out to center, emit decelerating primary vortices (Law 5). At the places that they are swirled, they form the satellites. These satellites (for example Titan) are generated as Earth and therefore are similar to Earth.

1. The Theory of new Axioms and Laws
1.1. The Axioms
According the Axiom of Classical Field Theory:

div (rot E) is equal to zero (0), (Figure 1,Ia))　　　　[1].

According new Axiom1: A field in which the vector E moves with a monotonically non-uniform speed (decelerating or accelerating) becomes an open vortex field structure: div (rot E) is not equal to zero (0), (Figure 1,Ib)) [2-4]. Axiom 1 claims that there are 2 type open vortices - transverse (in plane 2D) (Figure 1,Ic) and longitudinal (in volume 3D) (Figure 1Id). Each of them can be accelerating or decelerating. Therefore, we receive 4 type of open vortices.

According Axiom2: There are mutually orthogonal field structures that form a resonant system by exchanging energy and matter with each other, (Figure1,IIa,b)) [2-4].

Axiom 2 claims that orthogonal pairs form many pairs of particles (connected in the right direction) and many pairs of antiparticles (connected in the opposite direction) (Not pictures). The main pair of particles is electron – proton (Figure1,IIc,d). Their generating direction is from proton to electron. There are pair and inverse direction that form positron and antiproton.

1.2. The Laws

According Law 1: A decelerating transverse vortex in plane 2D generates in its center perpendicular in volume 3 D accelerating longitudinal vortex (Figure 1,IIc : electron) [3,4].

According Law 2: A decelerating longitudinal vortex in volume 3D generates in center of perpendicular plane in 2D an accelerating transverse vortex (Figure 1,IId : proton) [4,5].

Law 5 for 3D: The *decelerating vortex* in 3D is described with a system of 4 equations in which: longitudinal velocity (V) decreases in (n) portions (ψ^n) times; the angular velocity (w), the amplitude (W) and the number (N) of cross vortices increase in (n) portions (ψ^n) times:

$$I\,V^2 = V_0\,(1 - V),$$
$$I\,W^2 = W_0\,(1 + W),$$
$$I\,w^2 = w_0\,(1 + w),$$
$$I\,N^2 = N_0\,(1 + N).$$

where v_n, w_n are periodic roots with period n; v_n, w_n are **mutual orthogonal** that fulfill the requirement for orthogonality : $v_n \cdot w_n = V_0 \cdot w_0$, $v_n \cdot \omega_n = V_0 \cdot W_0$; $n = 0 \div \infty$; the roots v_n, w_n and ω_n and n_n are expressed as: $v_n = (1/\psi^n) \cdot V_0$, $\omega_n = \psi^n \cdot W_0$; $w_n = \psi^n \cdot W_0$, $[n_n] = \psi^n \cdot N_0$; linear velocity V_0 is the starting value of V_n, amplitude of cross vortex W_0 is the starting value of ω_n, angular velocity w_0 is starting value of w_n, **number N_0 is starting value of n_n, $[n_n]$ is the closest integer**; ψ is a proportional that fulfills the requirement: $\psi - 1/\psi = 1$, ψ is known as Golden ratio (Figure1,IIIa) [4-6].

In Space where we live the most movements are decelerating. The reason is that the transverse vortices have density and their some kind of mass.The result is that this Space is full of transverse vortices and they exerts resistance. The correspondng Space-Time is described by constant of Time (as a proportion).

According Law 5 for pulsating in Time (T), the transverse vortex coiled in electron and proton pulsates in time (T) as well. In the initial phase, when the electron shrinks it decreases in volume. The reason is that the velocity at the entrance of the transverse vortex is high because the acceleration is positive. This means, in short, that the velocity of the entrance of the transverse vortex of the electron, is accelerated.

Law 6 for 3D: The *acceleration vortex* in 3D is described with a system of 4 equations in which: longitudinal velocity (V) increases in (n) portions (ψ^n) times, the angular velocity (w), the amplitude (W) and the number (N) of cross vortices decrease in (n) portions (ψ^n) times: $I\,V^2 = V_0\,(1 + V)$,

$$I\,W^2 = W_0\,(1 - W), 1)$$
$$I\,w^2 = w_0\,(1 + w),$$
$$I\,N^2 = N_0\,(1 + N).$$

where v_n, w_n n are periodic roots with period n; v_n, w_n are mutual orthogonal that fulfill the requirement for orthogonality : $v_n \cdot w_n = V_0 \cdot w_0$, $v_n \cdot \omega_n = V_0 \cdot W_0$; $n = 0 \div \infty$; the roots v_n, w_n and ω_n and n_n are expressed as: $v_n = (\psi^n) \cdot V_0$, $\omega_n = (1/\psi^n) \cdot W_0$, $w_n = (1/\psi^n) \cdot W_0$, $n_n = (1/\psi^n) \cdot N_0$; linear velocity V_0 is the starting value of V_n, amplitude of cross vortex W_0 is the starting value of ω_n, angular velocity w_0 is starting value of w_n, **number N_0 is starting value of n_n** ; ψ is a proportional that fulfills the requirement: $\psi - 1/\psi = 1$,where ψ is Golden ratio.

From previous publications a very useful conclusion has been drawn that in Space out of Earth live the most movements are of longitudinal vortices .But they are not decelerated. but they are even accelerated The reason is in qualities of longitudinal vortices and lack of matter in Space and the result is lack of resistance. The correspondng Space-Time is described by constant of path (as a length of spiral).
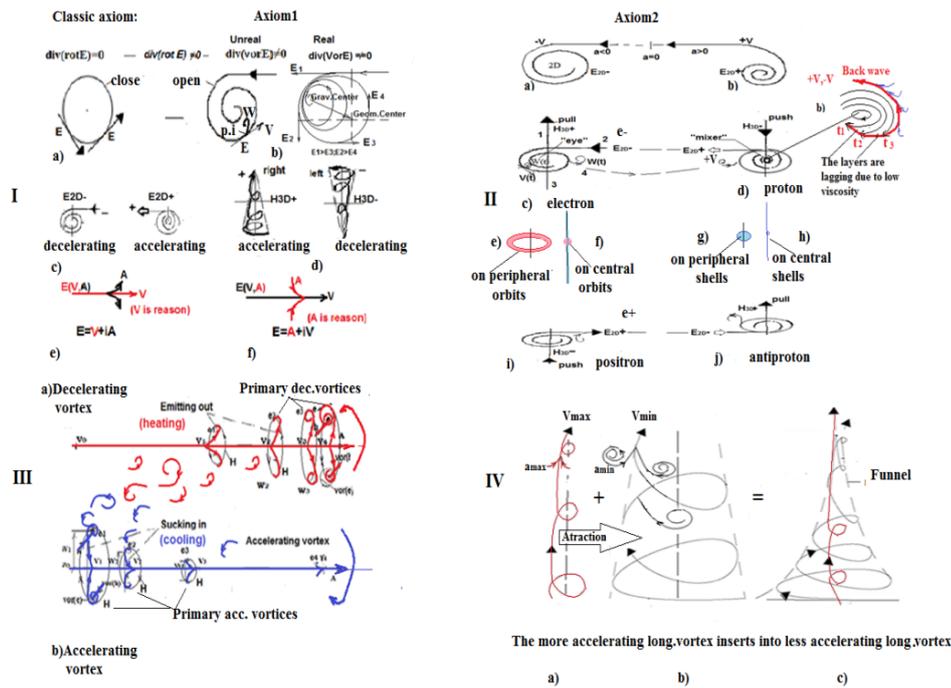
Figure 1.
I. a) Classic Axiom: closed vortex, b) New Axiom1: open eccentric vortex, c) Transverse decelerating and accelerating vortices, d) Longitudinal accelerating and decelerating vortices, e) Decelerating vortex emits dec. primary vortices: Law 5, f) Accelerating vortex suck in acc. primary vortices: Law 6.

II. New Axiom 2: a) Model of first orthogonal object, b) Model of second orthogonal object, c) Model of electron: Law 1 in pull passive, d) Model of proton: Law 2 in push active, e) Model of positron: Law 1 in push passive, f) Model of antiproton; Law 2 in pull active

III. a) Decelerating vortex with decreasing velocity emits decelerating primary vortices with increasing amplitudes: Law 5, b) Accelerating vortex with increasing velocity sucks in acc. Primary vortices with decreasing amplitudes: Law 6.

IV a) Longitudinal vortex with max. velocity, max acceleration, min amplitude and min. number of loops, b) Longitudinal vortex with min. velocity, min acceleration, max. amplitude and max. number of loops, c) Longitudinal vortex with max. velocity attracts long. vortex with min. velocity and inserts himself in center of slowest one.

2. Generating of Venus
2.1. Introduction
a) Variants of Vortices and Their Combination
The new Theory states that the bodies of the planets and the Sun are generated by the joint and simultaneous actions of 2 kind of open vortices: a transverse and longitudinal vortex. They are mutual orthogonal in time (T) and in space(S). But there are many variants of these vortices and respectively of constructions of mutual orthogonal pairs.

First: Each of these vortices can have a positive or negative acceleration. Because of each of 2 kind of vortices are mutual orthogonal the above condition this cannot be at the same time. If the transverse vortex is retarding, then the longitudinal one is accelerating or inversely.

Second: Their direction can be outward or inward. Because of 2 kind of vortices are mutual orthogonal the above condition this cannot be at the same time. If the transverse vortex is from outside to inside, then the longitudinal one is from inside to outside or inversely.

Third: They can be active or passive. Because of 2 kind of vortices are mutual orthogonal the above condition this cannot be at the same time. Even more- they can exist with combination of accelerating or decelerating. If the transverse vortex is actively accelerating, pulled from inside - out, then the longitudinal vortex is passively decelerating, pulled from outside -in (Venus).

Thus, the two main vortices will form minimum 8 (2³) combinations. Or they form 4 pairs of mutual orthogonal objects were obtained.

For Example: A decelerating transverse vortex actively pushed from outside to inside causes emitting a perpendicular passive accelerating longitudinal vortex from the center up (Law1). This is generation of Earth as solid body with hot and rare center and cool and dense surface. An accelerating longitudinal Funnel actively pushed from outside to center causes emitting a passive decelerating transverse vortex from center to out (Law2). This is generation of Moon as non-solid body with cool and dense center and warmer and rare surface. Thus **Earth and Moon** form mutual orthogonal pair They exchange matter through

transverse link and Energy through longitudinal Funnel.

An accelerating transverse Funnel actively pulled from center to outside (Figure 1,IVc). It causes sucking a perpendicular passive decelerating longitudinal Funnel from up to the center (Figure2b). This is generation of Venus (Figure 3). **Venus** has a semi-solid body with rare and hot center and cooler and denser periphery. **In** Saturn an accelerating longitudinal Funnel is sucked from center to outside. It causes sucking a decelerating transverse vortex from out to the center. This is generation of Saturn as gaseous body with warm and rare center and cool and dense periphery. Thus **Venus and Saturn** also form mutual orthogonal pair.

b) The Question: Why does Venus have the structure orthogonal to Earth?
Considering that the Earth is generated by a decelerating transverse vortex, actively pushing from outside to inside. In the center of the transverse spiral, a perpendicular accelerating longitudinal vortex is generated with a direction from inside to outside (Law 1). Thus Earth is generated as electron (e-) [5,7].

Venus is generated by a accelerating transverse vortex, actively pulled from inside to outside. In the center of this transverse spiral, a perpendicular decelerating longitudinal Funnel is sucked with a direction from outside to inside (variant of Law 1). Thus Venus is generated as positron (e+) [7,10].

c) Relationship between Venus and Earth
The same law (Law1) generates the Earth and Venus. They are not mutual symmetrical structures. They are not mutually orthogonal structures. Because they do not exchange Energy and Matter between them then they do not make resonance chain (according Axiom2).

The Earth and Venus are mutual opposites structures. They can annihilate like an electron and a positron if they are in the same place. But they participate in different orthogonal pairs and therefore do not interact with each other. The Earth participates in a pair with the third Resonator in the Sun, and Venus - with the second Resonator in Sun.

Result: The Earth and Venus are exact opposites mode of work.
For example: When generating the Earth, the transverse decelerating vortex actively pulled from the outside - inward and generates a radiating perpendicular longitudinal Funnel from the center of Gravity to up (Figure 2d). When generating Venus, the transverse accelerating vortex is actively pulled from inward to out and generates a sucking perpendicular longitudinal decelerating Funnel from above to its Gravity center (Figure 2b).
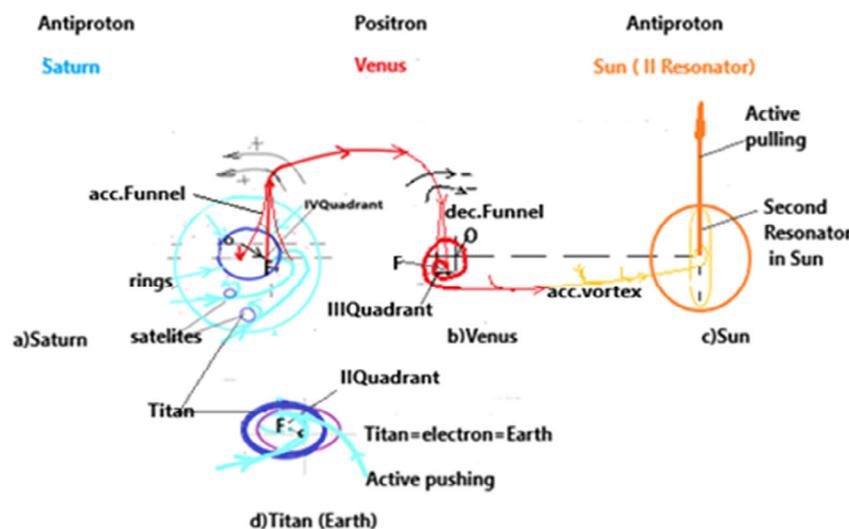

Figure 2: Planet Venus in system with Sun and Saturn,
Figure 2a) Saturn with Gravity center in IV quadrant,rings and satellites,
Figure 2b) Venus with Gravity center in III quadrant,
Figure 2c) Sun inserted the second Volume Cilindrical Resonator,
Figure 2d) Generation of satellite Titan like the Earth.

2.2. Detailed description of the generation of Venus
a) Venus has eccentric body
Venus has Gravity center (F) in III quadrant (Figure 2b). The reason is that E1>E3, E2>E4 This means that the only reason for eccentricity is fact of generating Funnel with positive acceleration (Axiom1) (Figure3a).

Result: Venus is eccentric body with Gravity center in III quadrant.
Projection on y-coordinate of Eccentricity Vector (OF-y) points to right (Figure3a). This vector (OF-y) rotates Venus to right or clockwise around Sun (Figure2b).

b) Eccentricity Vector and its projections on x and y coordinates
The distance between Geometric center (O) and Gravitation center (G) determines the length of Eccentric Vector.

The projection on y-coordinate of Eccentricity Vector (OF-y) points also to right (Figure3a). This vector (OF-y) rotates. Venus around Sun right or clockwise (Figure2b) [10].

Result: The projection on y-coordinate of Eccentricity Vector (OF-y) that points to right rotates Venus clockwise around Sun.

The projection on x-coordinate of Eccentricity Vector (OF-x) also points to right (Figure 3a). This vector (OF-x) repels Venus from Sun (from second Resonator inserted in Sun) (Figure2b, Figure 3a) [14].

Result: The projection on x-coordinate of Eccentricity Vector (OF-x) that points to right repels Venus from Sun.

Therefore, Venus rotates clockwise around Sun because of Gravity center is in III Quadrant and y-coordinate of Eccentricity Vector (OF-y) points to right.

c) The curvature of primary vortices

The curvature of the primary vortices is concave in the opposite direction of the direction of entrance Funnel (Figure3b). The entrance accelerating Funnel is directed from the inside out and the concaves of the primary vortices point from the outside to the inside or in opposite direction. These curved in the opposite direction primary vortices form a kind of Reverse Wave (Back Wave).

Result: The curvature of primary vortices that has opposite direction-to-direction of entrance Funnel form so called back wave.

This Reverse Wave rolls the entire spiral to from left to right or clockwise. So it pulls and rolls the body of Venus very slowly in the left to right direction around its axis

Result: The Back wave formed by the curvature of primary vortices rotates Venus around its axis also clockwise.

Because very small positive acceleration the speed of rotation around its axis is very slowly clockwise (Figure 3b).

Result: The small positive acceleration of primary vortices is the reason for small speed of rotation of Venus around

And the low speed with which the input Funnel is pulled by the second Volume Cylindrical Resonator (inside the Sun) determines the low speed of rotation of Venus around its axis. The low power of the second Resonator in the Sun determines the low speed of pulling the input Funnel, the sparsely spaced primary decelerating vortices and hence the low speed of rotation of Venus around its axis.

Result: The low power of the second Resonator is the reason for low speed of rotation of Venus around its axis.

Because the speed of rotation around the axis is very small,

Venus rotates around the Sun showing only one side to it. Or Venus rotates in phase.

Result: The rotation of Venus around its axis is almost in phase with its rotation around the Sun.

Thus the rotation of Venus around Sun and rotation around its axis are in phase and to right (clockwise). Therefore, the both rotations of Venus are clockwise. It is well known that Earth rotates around its axis and around Sun counter clockwise

Result: The directions of rotation of Venus (clockwise) are opposite to directions of rotation of Earth (counter clockwise).

d) The enter Funnel into Venus

At the entrance we have an invisible Funnel of very weak self -accelerating longitudinal vortices inserted in accelerating Funnel (Figure 1,IVc). Therefore according Law6 the accelerating longitudinal vortices are inserted into each other and forma accelerating Funnel (Figure 1,IVa,b). Because they are accelerating- each of them sucks primary accelerating vortices from outward to itself. Thus, the self –accelerated longitudinal vortices, packed in a accelerating Funnel, attract each other. They form an concentrating wedge-shaped accelerating Funnel (Figure 1,IVc).

Result: The accelerating vortices inserted one into other form concentrating wedge-shaped accelerating input Funnel with direction from Venus to out.

The accelerating primary vortices are sucked not only from the entrance longitudinal Funnel. They are sucked also before when this Funnel was rolled crosswise into a transverse body of Venus in an inside-out direction. The primary vortices are sucked from out to in along the entire spiral from the Gravitational center (F) to the exit. According Law 6 in self-accelerating vortex in the direction from the Gravitational center outwards, the distance between the primary vortices increases or velocity increases and their amplitude decreases with the corresponding degree (n) of a constant proportion (ψ^n) (1).

The curvature of these primary vortices, that are sucked by accelerating vortices (included in the input Funnel) is to left (Figure 3b). This curvature causes a Back Wave in opposite direction of input Funnel. It was discussed in previous paragraph that the input Funnel has direction from center to out but primary vortices have curvature from out to in or to right. Actually this Back Wave of primary vortices rotates Venus around its axis clockwise.
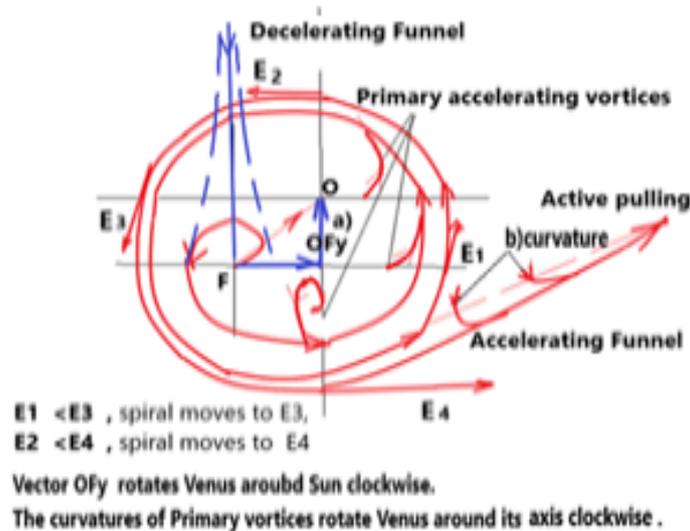
Figure 3: Direction of rotation of Venus
Figure 3a) The projection onto the y- coordinate of the Eccentricity Vector (OFy) points to the right and therefore Venus rotates around the Sun to the right

Figure 3b) The bending (curvature) of the primary accelerating vortices is such that Venus rotates around the its own axis from left to the right (clockwise).

e) The body of Venus
Since the transverse spiral is slightly accelerating, in the center the primary vortices are of large amplitude (warm) and the spiral becomes with a large distance) rare) between the turns. That is why center of Venus is rare and warm.

Result: The center of the body of Venus is warm and rare.
Since the transverse spiral is slightly accelerating, towards the periphery the primary vortices become of small amplitude and the spiral becomes with a much smaller distance between the turns. That is why periphery of Venus is cold and dense.

Result: The periphery of the body of Venus is cold and dense.
Thus, Venus is similar to Earth according structure of body but Venus work in opposite mode in comparison the Earth.

3. Generating of pair Venus –Sun
3.1. Relationships between Venus and Sun (through second Resonator)
a) The inserted in sphere of Sun 4 Cylindrical Resonators
It can be seen that the Sun is forcefully pulling and slightly accelerated the input Funnel from Venus to outward (Figure 2b, Figure 3).

Thus the longitudinal vortex is pulled to upwards from center of second cylinder in Sun (Law 2) This longitudinal vortex is included in the general funnel of the Sun and it is second in order. Therefore the general longitudinal Funnel coming from Space to the Sun contains 4 longitudinal vortices. The entire mixture of longitudinal vortices is decomposed by frequency, amplitude and phase inside the spherical resonator of the Sun.

Result: The 4 Cylindrical Resonators are included in sphere of Sun, they decompose the mixture of longitudinal vortices by frequency, amplitude and phase.

This mixture is decomposed by amplitude-frequency characteristics in 4 Cylindrical Volume Resonators. And the phases show whether the vortex is in the direction from outside to inside or from inside to outside. The first, third and fourth are in the direction from space to the Sun.

The first longitudinal innermost vortex is sucked in direction from outside to inside. Rotating it forms the first cylindrical resonator. Its cylinder, inscribed in the sphere of the Sun has the greatest height and the smallest diameter. This elongated cylinder controls Mercury [10,11].

b) The second Cylindrical Resonator
The second vortex has the opposite phase and has the direction from the sun to space therefore the second vortex is pulled upwards.

Result: Only from the second Cylindrical Volume Resonator is pulled *longitudinal* vortex in direction from inward to up.
The second longitudinal vortex is pulled in direction from inside to outside and rotating it forms the second resonator. It controls Venus. All other longitudinal vortices have the same phase and their direction is from the outside inward. This means that their vortices actively and forcefully are sucked from Space inward towards the Sun [11,12].

Result: Only the second longitudinal vortex from main input Funnel is pulled from inside to outside of Sun and has opposite phase then the other 3 vortices
According to Law 2, this pulling longitudinal vortex generates a transverse vortex with direction from the inside –out.

Result: The second Cylindrical Resonator generates pulling *transverse* vortex from outside to in.
When is pulled of longitudinal vortex from Venus the direction

of winding the transverse spiral of Venus is clockwise.

Result: The direction of winding of transverse vortex is clockwise.
In Venus the direction of winding the spiral is opposite (counter clockwise) is opposite. For comparison in Earth the direction of winding the spiral is clockwise.

c) The Third Cylindrical Resonator
The third longitudinal vortex pushes from outside to inside and rotating it forms the third Cylindrical Volume Resonator. For great luck as the third in a row this Cylindrical Resonator has almost equal dimensions of its height and diameter. This means the third cylinder inscribed in the sphere of the Sun has a maximum volume. It rules the Earth. Thus the Earth occupies a privileged position among the other inner planets. Therefore, the Earth is generated by the maximum Power of the transverse and longitudinal vortices from the solar system [12].

Result: The third longitudinal vortex form Resonator with maximal volume, generates maximal Energy and controls Earth.
The fourth longitudinal outermost vortex of the entrance Funnel to the Sun pushes from outside to inside and rotating forms the fourth Cylindrical Resonator. Its cylinder has the smallest height and the largest diameter. This flattened cylinder rules Mars [13].

3.2. Generation of Sun
The generation of the Sun is from an active longitudinal Funnel that inserts four longitudinal vortices (Figure 1,IVc). Three of four vortices (except second) pushes from above - down towards the denser medium. Due to the denser medium entering, this Funnel becomes self - decelerating. This decelerating longitudinal Funnel through accelerating Back wave, generates an accelerating transverse vortex. Its accelerating spiral forms the sphere of the solar body (Law 2).

Because it is accelerating and pushes from the inside - out, this spiral wound in the center in large step and at the periphery- in less step.

Result: The body of Sun in center is rare and at periphery is dense.
In addition, the longitudinal vortices of the longitudinal Funnel pass perpendicularly through the center. They suck in energy and cool the center of the Sun (Law 6).
Result: The body of Sun is cold in center.
Since the transverse vortex accelerates towards the periphery of the Sun, this positive acceleration reaches enormous values.

Result: The body of Sun is cool in periphery.
This positive acceleration reaches enormous values towards the periphery of the Sun. Actually this positive acceleration that carries out the nuclear fusion of hydrogen nuclei into helium (He). Simultaneously it also releases enormous heat and emits light.

Therefore, it is not energy and heat that are the cause of nuclear fusion, but exactly the opposite - the acceleration of the transverse vortex is the cause of the release of energy and heat from nuclear fusion in the Sun.

Result: The positive acceleration of transverse vortex is the reason for a nuclear fusion of hydrogen nuclei into helium (He) and the result is emitting the heat and Energy (but not inverse).
Three of the four (3 from 4) longitudinal vortices inserted in the longitudinal Funnel enter with force from outside-in. Only the second longitudinal vortex (inserted in longitudinal Funnel) is pulled with force from inside-out [13].

Result: Only the second longitudinal vortex from input Funnel of Sun that is pulled perpendicular in direction from Sun to out.
Thus second longitudinal vortex resonates in second Resonator inserted in Sun.

Result: The second longitudinal vortex forms second Volume Cylindrical Resonator.
In this second Resonator is coiled the transverse vortex from out to inward.

Result: The second Volume Cylindrical Resonator generates and pulls transversely the transverse vortex from Venus to Sun.
Therefore, this is the second longitudinal vortex, inserted in longitudinal Funnel that resonates in the second Cylindrical Volume Resonator. It is inserted in sphere of Sun and generates the Venus.

The body of the Sun is generated according to Law 2 which does not depend on the direction (phases) of the incoming longitudinal vortices. Only the directions are different. Thus three (of the four) longitudinal vortices generate the 3 Volume Resonators in the body of the Sun (in direction from out to in) as protons (not Figure).

Result: The first, third and fourth longitudinal vortices (in direction from out to in) that is inserted in input Funnel, generates transverse vortices (from in to out) just like a *protons (p+)*.
Only the second longitudinal vortex generates its Resonator as an antiproton (Figure2c).

Result: The second longitudinal vortex (in direction from in to out) that is inserted in input Funnel, generates transverse vortex (from out to in) just like an *antiproton (p-)*.

Since 3 of the 4 vortices generate the body of the Sun as a proton (p+) and only1 vortex generates as an antiproton (p-) then the Sun is generated predominantly as a proton.

Result: The Sun is generated predominantly as a proton.
Predominantly it means that 3 resonators (for Mercury, Earth and Mars) work as protons and only 1 resonator (for Venus) works as an antiproton [12,13].

4. Generating of Pair Venus-Saturn
4.1. Generating of Saturn
It turned out that Venus was generated very differently from the other 3 inner planets. And namely - Venus is generated by a slightly accelerating vortex with a direction from inside to outside which sucks a longitudinal decelerating Funnel1 perpendicularly from top to bottom (Law 1) (Figure 3). This is the generation of elementary particle positron [7-9].

Result: Venus is generated like a positron.
The generation of Saturn happens by being pulled forcefully and sucked from the Gravity center of Saturn (perpendicularly upwards) of the longitudinal accelerating Funnel 2 (Figure 2). This self-accelerating Funnel 2 pulled by Saturn (due to friction and the great distance in Space) becomes to a self - decelerating Funnel 1, sucked by Venus.

According to Law 2 the described longitudinal self-accelerating Funnel 2 of Saturn generates a transverse self- decelerating vortex. It forcefully is sucked in direction from the periphery (including the rings and satellites) inwards towards the Gravity center of Saturn. Therefore, Venus is generated according Law1 but Saturn is generated according Law 2. According Axiom 2 Venus is happens to be almost mutual orthogonal to Saturn. Venus and Saturn exchange Energy by link of longitudinal Funnel 1-Funnel 2. (Figure 2).

Result: Venus and Saturn are linked only along longitudinal Funnel.
But they have not transverse link due to the large distance between them.

Result: Venus and Saturn are generated as half- mutual orthogonal.
Because Venus is generated as positron then Saturn is generated as antiproton [1,3.7].

Result: Saturn is generated like an antiproton.
Through the center of Saturn pass the Funnel2 that starts to accelerate (Law 6) but at the beginning the positive acceleration is almost zero. The decelerating transverse vortex is sucked from periphery (rings) to center Law 2).

This means that at the Gravity center the decelerating transverse vortex has a big amplitudes of the primary decelerating vortices (Law 6). These two facts are reasons the center of Saturn is rarefied and warm.

Result: The center of Saturn body is rarefied and warm.
Therefore, Saturn radiates heat outward like Jupiter and the Sun.

Result: Saturn radiates heat outward.
At the beginning of the decelerating transverse vortex (generating the periphery, rings and satellites of Saturn) the amplitude of the primary vortices is small (Law 5). At the beginning the primary vortices of decelerating transverse vortex have larger acceleration. Thus the periphery of body and rings of Saturn is denser and very cold.

Result: The periphery of Saturn, including the rings is denser and cold.
It is known from the previous paragraph that the center of Venus is warm and rare and its periphery is colder and denser. And Saturn has also a warm center and a cold periphery. Venus exchanges Energy through the longitudinal decelerating Funnel with Saturn. But Saturn cannot exchange Energy with Venus There is a possibility that Saturn returns Energy to the Sun (by second Resonator), not direct to Venus.

4.2. Generating the satellite Titan
It turned out that Saturn was generated very differently from the Venus. Venus is generated by a slightly self-accelerating transverse vortex with a direction from inside to outside. It sucks a longitudinal decelerating Funnel perpendicularly from top to bottom (Law 1).

Saturn is generated by a slightly self-accelerating longitudinal (not a transverse) Funnel. This longitudinal Funnel is slightly accelerating in direction from the Gravity center of Saturn - outwards.

This self- accelerating longitudinal Funnel from Saturn to outward is pulled from up to the Gravity center of Venus. But there is too great a distance in Space between Saturn and Venus. Thus this perpendicular accelerating Funnel emitted by Saturn (due to friction) becomes decelerating when it is sucked perpendicularly by Gravity center of Venus.

Result: Because of friction, the perpendicular self-accelerating Funnel emitted by Saturn becomes self-decelerating, sucked perpendicularly by Gravity center of Venus.
Further this longitudinal self-accelerating to outward Funnel pulls a self - decelerating transverse vortex from the outside (from the rings of Saturn) to inwards Thus the final of the generation of Saturn is the decelerating transverse vortex pulled from the outside-inwards. (Law 2) (Figure 2a).

Result: The self - decelerating main transverse vortex that is pulled from outward to Gravity center of Saturn forms rings of Saturn (including satellites) and finally the body of Saturn
Because this vortex is decelerated, it emits primary decelerating transverse vortices from itself – outwards (Law 5). It is precisely in these places where the emission and swirling of decelerating primary transverse vortices occurs that the satellites of Saturn are formed. This is exactly how the satellite Titan is generated. Titan is generated exactly at place of primary decelerating vortex (Figure 2a,d).

Result: Titan is generated just a place where is emitted and swirled of decelerating primary transverse vortex of self-decelerating transverse vortex of Saturn.
Thus Titan is generated by a primary self-decelerated transverse vortex from the outside-in that generates a self-accelerated longitudinal perpendicular Funnel from its Gravitational center to up (Law 1). Therefore Titan is generated almost similar to Earth.

Result: Titan is generated almost similar to Earth.
The difference is that Titan is generated by primary weakly vortex

from Saturn but Earth is generated by the most power main vortex from Sun (emitted by third Resonator of Sun). Thus Titan is generated as some kind cold electron

Result: Titan is generated like a kind (cold) electron.
The vortex to Earth is transverse decelerating vortex and it is emitted by a third Cylindrical Volume Resonator. The third Resonator that is inscribed in the sphere of the Sun has maximal Volume and Energy, because its high is equal to its diameter. Thus Earth is generates as some kind hot electron.

Result: Earth is generated like a kind (hot) electron
Therefore, Titan and the Earth have a common generation algorithm and in this they are similar. Namely, Titan and the Earth have a liquid and boiling core and a dense and cold periphery, crust
Wikipedia: "Titan is the only known natural satellite to man with a dense atmosphere and the only known celestial body (except Earth) with stable liquid lakes on its surface".

But Titan and Earth differ in that Titan consumes the weak Energy from Saturn's primary self-decelerating transverse vortices. But Earth consumes the maximum Energy from the main decelerating transverse vortices from the most powerful third Cylindrical Volume Resonator included in the sphere of the Sun.

For comparison: The third Cylindrical Volume Resonator included in the sphere of the Sun has maximal Volume, because its high is equals to its diameter.

Result: Titan receive much less Energy from Saturn, then Earth receive from Sun.

Wikipedia: "Titan is super cold: the average temperature of its surface is about minus 180 degrees Celsius. There is no water there in any form, except as deep-frozen ice".

Because of these differences between Earth and Titan there is life on Earth, but there is no life on Titan. The difference is in the received power (P) of Energy (E). The difference is not just more power (P) of Energy received to Earth from Sun, but much more power (Psun). In comparison Energy received by Titan from Saturn is much less power (Psat).
Therwfore: **Psun** >>**Psat**. This is the reason why Earth has life and Titan does not.

Result: Earth has life and Titan does not, because the received Energy of Earth from Sun (Psun) is much more than received Energy of Titan from Saturn (Psat).

5. Conclusion
Titan has no Electromagnetic field because the power of the low-frequency (LF) pulses from the longitudinal Funnel sent by Saturn is minimal [11].

Titan has no Gravitational field and accordingly no atmosphere because the power of the high-frequency (HF) pulses from the longitudinal Funnel sent by Saturn is minimal [12].

However, the similarities between Titan and Earth are more than the differences. Thus the studying Titan is useful for drawing conclusions about Earth. Besides the scientists can hope for practical benefits.

References
1. Markova, V. (2015). Gravity structures. Essence and properties, *Fundamental Journal of Modern Physics, 8*(2), 85-104.
2. Markova, V. (2016). Generators of gravity systems. Tubes of longitudinal vortex, properties and operation, *Fundamental Journal of Modern Physics, 9*(1), 37-56.
3. Markova, V. (2016). Generate gravitational waves in the Solar System, *Fundamental Journal of Modern Physics, 9*(2), 65-97.
4. Markova, V. (2017). Modeling of gravitational waves by creating a system of paired cross vortices. Some properties, conclusions and applications. *IOSR Journal of Applied Physics (IOSR-JAP 9: 25*-32.
5. Markova, V. (2017, July). New axiom for description of Gravity. In *5th International Conference on Physics, Athens, Greece* (pp. 17-20).
6. Markova, V. (2017, December). A generator using a tube of longitudinal accelerating open vortices nested one inside the other for positive feedback. In *3th International Conference on High Energy Physics, Rome, Italy.*
7. Markova, V. (2019). Extended Field Theory, New Axioms, Laws and Consequences, *2th International Conference on Quantum Mechanics & Nuclear Engineering, Paris, France, September 23-24,2019.*
8. Markova, V. (2020). Modeling of Antigravity Force on the base of Expanded Field Theory, *American Journal of Engineering Research (AJER), 9*(6), 151-159.
9. Markova, V. (2021). The Gravity Funnels, formed by the longitudinal vortices, according to the new Axioms and Laws, *Adv Theo Comp Phy, 4*(1), 61-68.
10. Markova, V. (2021). Application of cross vortices, according the new Axioms and Laws, *Adv Theo Comp Phy, 4*(2), 106-112.
11. Markova, D. V. (2022). Gravity Field (LF) in inner planets of the Sun system described by theory of new axioms and laws, *Journal of Theoretical and Computational Physics, 1*(2), 01-12.
12. Markova, D. V. (2022). Gravity Force (HF) on Planet Earth Described by Theory of New Axioms and Laws. *Journal of Theoretical and Computational Physics, 1*(2), 01-07.
13. Markova, V. (2023). A New Gravitational Model of the Solar System According the Theory of New Axioms and Laws, ASAP, *Applied Physics, 3*(4), 09-24.
14. Markova, V. (2023). Changes in the Gravitational Structure of the Earth, Causes and Results, According to the Theory of New Axioms and Laws, Acta Scientific *Applied Physics,* 3(8), 03-07.
15. Markova, V. (2024). Pulsation of Suns Gravity and Magnetic Field, According to the Theory of New Axioms and Laws. *Adv Theo Comp Phy, 7*(3), 01-09