

## NATURE OF HEXAGONAL STRUCTURES ON SATURN'S POLES

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### I. INTRODUCTION

The American (NASA) space researchers had discovered enormous vortexes on the North and the south poles on Saturn, the second biggest planet of the solar system in mass and size [1]. The scope of the whirlwind movement exceeds in thousands of times the hurricanes, observed on the Earth. The outer ring, restricting the cyclone exceeds 4,000km  $[(2j^3)^2, m]$ , the velocity of the air flow reaching 530 km/h  $\approx 3/2j^2$  m/sec, which two times exceeds the wind velocity, registered on the Earth  $(3/4 j^2$  m/sec) ( $j = 10$  is introduced here by the authors as a completely new, unused previously notion, regarding dimensioned numbers, not known by the theory of dimensions and the system of measurements of physical values).

The astronomers discovered an interesting peculiarity of the phenomenon – the central part of the vortex was of hexagonal shape. It could be seen on the photographs, made by Voyager space balloon that hexagonal shape was not very much clear. (See cyclone's "eye").

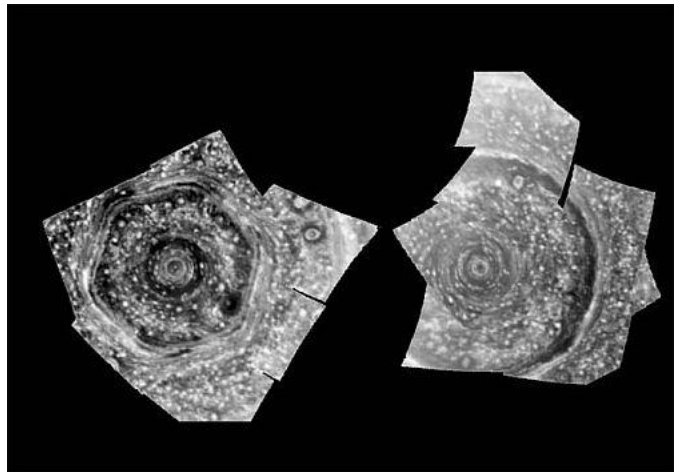


**Figure 1.** Photo taken by the Voyager Space Probe of the vortex motion of gaseous medium at the poles of the planet Saturn [1]

Photographs, made by *Cassini* space balloon show more clearly the hexagonal shape of the central part of vortex on the South pole, as compared to the same structure on the North pole.

So, the hexagonal structure in vortexes' centres appears to have been stable for more than two decades.

This energy structure, discovered more than 20 years ago and corrected last August is a true sensation, due to impossibility of explaining this natural phenomenon that originated and have been existing for some years on the planet, consisting entirely of liquid gas.



**Figure 2.** Photo taken by the Cassini Space Probe of the vortex motion of gaseous medium at the poles of the planet Saturn in 2008 [1].

NASA's decision to unveil all data is explained by the fact that modern science, which has thoroughly investigated the deep mysteries of atom of is incapable of explaining this phenomenon. So, all the world's scientists are invited to solve this mystery of the planet. It is natural that physicists from Nils Bohr's institute were the first to respond this challenge. Pupils and followers of the outstanding physicist and theoretician, who founded the fundamentals of the theory of atom decided to choose from the great variety of the arsenal of physics Newton's bucket, a relatively simple device, consisting of a bottom, not coupled to the walls. They managed to receive polygons on the water's surface, when the bottom was rotated with high speed, but they were unable to explain formation of regular hexagonal shape, when Newton's bucket is not there on the planet [1].

What we present here is not a hypothesis, but intelligible explanation of the magnificent phenomenon, existing on Saturn, substantiated with the methods of calculation, prescribed by Natural Theory [2,3].

Transcendental  $\pi \approx 3,14\dots$ number, showing the relationship between the length of circumference exclusive line and diameter's straight line has been known since ancient times, still its physical interpretation with regard to new notions of structural formations of the earth matter remains very much unheard of.

## II. THEORETICAL INVESTIGATIONS AND ANALYSIS THEREOF

One of the discoveries of Natural Theory (*i.e. the entire complex of new notions (discoveries) of the Earth's matter, refuting modern quantum theory of atom*) is a fundamental constant  $b_0 \approx 3,16\dots$  (Like  $\pi$  number, corresponding the first letter of Pythagoras, ancient Greek mathematician, designation of  $b$  – constant corresponds to the first letter of the author's family name -Y.V.Belousov's'), which is bigger by just two hundredths than  $\pi$ .number. This constant appears to have some character for description of potential energy of hexagonal structures of any dimension, starting with nanostructures of the Earth's matter.

Potential energy of the hexagonal structure on Saturn is different from the unusual, principally new model of atom only in huge size of diameter. Interpretation of the physical sense of fundamental constants showed that the decimal fracture 0.04, included into  $\pi$  number and decimal fracture 0.06 - in  $b$  number explain the basic difference between the well known (from crystallography, organic chemistry, biology and other sciences) earth structures of cubic and hexagonal types.

This means that the phenomenon of stable hexagonal-shaped, energy structure of enormous size can be easily explained by means of the new scientific notions of the Earth's matter. In other words, natural theory of mass  $m$  on the inhabited Earth planet is constructed on the basis of the original chaos, *i.e.* active peculiarities of time, pointed out, by N.A. Kozyrev, [ 4 ] an outstanding physicist of our time.

Fig1. presents quite similar curved lines. On the left-hand side rated curves of natural sinusoid are depicted, describing regular changing of the level of potential energy along  $+Y$  for the

period of vibrations  $T= 2b_0$ . The right side of Fig.1.b) shows curved lines, taken from the reference book on physics [ 5 ].

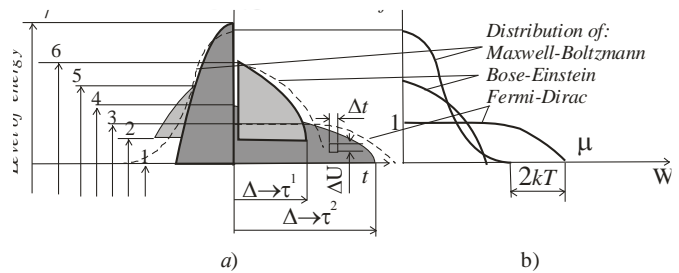


Figure 3. Positive half wave of natural sinusoid:

a) quantization of energy internal  $\frac{space}{time}$

b) of functions of distribution of the classical and statistics for particles possessing  $m$  mass.

Each of the depicted graphs of distribution function's curves  $f$  was named after great scientists and thinkers of the past: Maxwell-Boltzmann, Bose-Einstein Fermi-Dirac. The authority of these scientists recognized all over the world is so big that making any changes in these curved lines seems to be unthinkable. It may be concluded that that here, by joint efforts of all outstanding scientists the entire knowledge of all elementary particles, possessing  $m$ -mass. is summarized, for all functions of distribution possess a common argument, kinetic energy, equal to  $W = \frac{1}{2} mv^2$ . Tremendous efforts, applied by great scientists are hidden behind those graphs, their talents and brains contributed to the sole aim-to cognize the Earth's matter from its origin.

Comparing these graphs visually we may arrive to the following conclusions:

- time and kinetic energy as an argument along  $+X$  – axis turn out to be notions, equivalent for designing quite similar curved lines;

- some difference in functional dependence is explained by application of far more advanced method of calculating, than the method of indefinite Lagrange multipliers for the search of a specific extremum;

- along the ordinate axis absolutely precise level of potential energy, depending upon time is shown, rather than probable characteristics of velocity's values, or coordinates of particles;

- the results presented here are not inferior than the results, universally known in fullness of the data, regarding  $m$ -mass incorporated into the notion of kinetic energy, moreover for the negative half-wave there are some corresponding calculations of the level of negative internal atomic energy;

- inasmuch the process of vibration is not described by a single natural sinusoid only, the authors' new knowledge of the Earth matter exceed very much in its scope the knowledge of the modern physical science.

Calculations of the natural Theory prove that a considerable amount of energy is hidden in the mass of the terrestrial globe, which cannot be carried by a wave method and consequently is not registered by the most up-to-date intricate instruments. From time to time ships, and planes lose their *mass* inside the notorious Bermuda triangle and people's lifetime stops there. Amazing, abnormal things are observed inside anomalous areas of the globe and the multitude of other mysteries of the inhabited Planet cannot be explained by the formalized science. It only can be explained by the fact that the modern science of Nature (i.e. Physics) is unaware of magnificent physical peculiarities of Time, which strangely fall out of the quantum theory.

As far as gaseous vortexes of gigantic scope are concerned it is not possible to explain this phenomenon, by means of the theory of atom, or from positions of the classical theory of gases. It was discovered by science more than three hundred years ago, that hydrogen (the substance of space origin), is governed, like all other Earth gases by the equation of state  $\frac{1}{2} mv^2 = \frac{3}{2} kT$ , where  $k$  – is Boltzman's constant,  $T$  – being temperature.

Hydrogen, filling the outer space, hydrogen, inside the Sun's mass and hydrogen on the poles of Saturn cannot even be designated by a common  $m$  symbol, because science possesses quite dim knowledge of mass of bodies of terrestrial origin, to say nothing of space bodies' mass. So, why physicists made gaseous space matter and the matter, comprising the gravitating mass of the Sun obey the laws of the Earth, one hundred years old?

It was found after careful analysis of the available experimental data [6,7], that unlike gases of terrestrial origin, hydrogen shows exactly vice versa behaviour, when it is heated..

Tornadoes, hurricanes and typhoons are observed on the Earth, but there is no «physical bucket», by which it would be possible to predict the coordinates of future disturbances, or calculate the diameter of vortex and tornado's speed and direction. The USA suffer particularly big material and men losses from unknown, spontaneous nature of atmospheric motion.

Denial of the fundamentals of classical physics leads to appearance of absolutely precise

calculated quantum structure of potential energy for all simple and complicated gases, existing on the Earth (very similar to the bucket with “heavy” rotating bottom), explaining the causal vortex and forward movements of air masses, as well as for each gas separately. Hence, the hurricane inside the hexahedron can be evaluated by means of natural, unorthodox mathematics.

Why these structures, similar in principle, differ on the North and the South poles of Saturn? Let us recollect the formula used for calculation of sphere's volume, if its radius  $V_s = \frac{4}{3} \pi r^3$  is known. It goes without saying that the bigger the radius is, the bigger volume we are going to get,  $\pi$  number confirms the sphere's round shape, while  $\frac{4}{3} = \frac{2}{3} + \frac{2}{3}$  can be represented as the sum of relation of ordinary numbers, irrespective of the value of radius of a sphere of any dimension.. Then,  $\frac{2}{3}$  – is but a principle of quantification of “light” potential energy of a half of the volume of the northern hemisphere, while,  $(\frac{3}{2})^{-1}$ , i.e. the inverted fracture determines the general principle of quantification of “heavy” potential energy of the southern hemisphere.

N.A.Kozyrev,, the outstanding physicist of our time proved by measuring the figures of Jupiter and Earth that the southern hemisphere of the space bodies is “heavier” than the northern.

It is known that if you look at the terrestrial globe from the North pole, it is rotating in counter-clockwise direction, while if an observer watches it from space, from direction of the South pole, it is rotating in clockwise direction. It appears that straight along the equator's line time goes “berserk”, hence the initial reason of division of the space bodies into two hemispheres is its Majesty Time.

Its winter now in the northern hemisphere and its summer in the southern. Then, have already experienced the summer, which is in the southern hemisphere now, or it will come to us, after it expires there? Where the summer is the past and where it is future? So, every person crossing the equator makes a discreet leap in time, equal to 6 months. But the watch of this traveller, no matter how precise it may be will be fast or slow (?) by  $\approx 365/2 \approx 182,5$  days (!). It appears that A. Einstein, the genius misunderstood something when he wrote:” For us, convinced physicists, the difference between past, present and future –is not more than illusion, though very haunting illusion.” (A. Einstein's letters to M.Besseau // A. Einstein's anthology 1977. M., 1980. pp.. 50).

When a person is in the centre of geographical pole of a planet, in the point, which does not rotate, the arrows of his watch continue to move in the same direction, just like the watch of a person, crossing the equator, counting smoothly the time,

passing from present to future. However any first step from the point of geographical pole will be made in the direction of South pole, so, East and West is here an illusion (?). Still for all people, in different areas of the world, without exception, four directions is but objective reality, irrespective of the laws of physics. The Sun rises on the East and sets on the West, following the law of Nature, not explained by science, yet, a Polar star whines over the northern hemisphere and Southern Cross shines for some reason (?) over the southern hemisphere..

Physical understanding of fundamental constant  $b_0$  with the dimension of linear units of measurement leads to a complete changes in views of traditional science on non-uniformly scaled structural division of the earth matter and the reason of motion of matter on Earth. It appears, that hexagonal structures on the poles of Saturn are a specific proof of absolute precise interpretation of  $b_0$  fundamental constant, from the point of view of natural theory of quantification of initially heterogeneous, one in energy Space/Time, the natural theory, in its turn, which is not built on hypotheses and axioms, but on true physical constants proves to be equally precise both for description of atom's potential energy and space bodies of natural origin..

### III CONCLUSIONS

1. In the composition of the terrestrial globe mass it is hidden the energy which is not imparted by the wave method.

2. From the scientific analysis, published experimental data, calculation methods of Natural Theory it is established that hydrogen when cooling expands.

3. The Natural Theory which is expressed not on hypotheses and axioms but on certain physical constants is exact at the description of both the potential energy of atom and the celestial bodies of natural origin.

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