ISSN: 2639-0108

Research Article

Advances in Theoretical & Computational Physics

Causal Description of Natural System According Theory of New Axioms and Laws

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Submitted: 2025, Sep 10; **Accepted:** 2025, Nov 05; **Published:** 2025, Nov 21

Citation: Markova, V. (2025). Causal Description of Natural System According Theory of New Axioms and Laws. *Adv Theo Comp Phy, 8*(4), 01-07.

Essence

The parametric equations describe processes by introducing and controlling by using external parameters. This is an ideal well-known approach for describing the processes in Technical systems.

But it is inaccurate using the parametric description to the Natural systems. This applies mostly and especially to the description of fluid movements in Nature. The reason is that the external and externally controllable parameters are alien, artificial and unusual for essence of fluid movements in Nature. The result is that the parametric approach of Natural phenomena (that is better known and used) leads to some distortion in conclusions for fluid systems.

Using his Theory of new Axioms and Laws, the author proposes that Natural phenomena be described using Causal (nonparametric) equations. The Natural processes in fluid is described in 2D (in plane) or in 3D (in funnel). Unlike technical processes, the fluid is described by two qualitatively different movements -Velocity of longitudinal vector and Amplitude of vortex. These movements are mutually orthogonal in Space and Time. The Causal approach uses one parameter in view of proportion - the proportion of the Golden section. This proportion measures the internal ratio of the reason as Velocity to result as (perpendicular) Amplitude, or in opposite order. Since the Velocity (as vector) and the Vortex (as curl) are qualitatively different movements, they are mutually inhomogeneous

Thus this proportion describes the transformation of quality the Velocity into the quality of Amplitude in one and the same Space (point) and one and the same Time (simultaneously), or in opposite order. Using the Causal approach we can describe even hyper complex phenomena such as structure of elementary particles or the Gravitational structures.

1. The Classical Parametric Approach

The one single Classical Axiom makes the Classical Theory of the Electromagnetic field (of Maxwell) to be true [1]. The Classical Axiom states that: when tangent vector (E) moves by the rotation (rot E) along closed loop, the change (div) in length or amplitude of this rotating vector (rot E) is zero: **div(rot E) = 0.** Thus the motion along a closed vortex is uniform. Therefore the Classical Axiom of Theory Electromagnetic Field proves an uniform motion. The entire Theory of the Electromagnetic Field describes only the uniform motions. All Laws of Electromagnetic Field describe uniform movements that moves with constant velocity: **V = const.**

The Parametric description of the processes from Classical Science fully reflects the so-called **Phenomenological approach** as a philosophical basis. According Wikipedia the words of phenomenology are: “We do not know what kind of things there are, but we know how they seem to us (how they appear to our consciousness)”. It is not concerned with "reality", but with how we perceive it [2]. The Phenomenological approach to phenomena and processes represents an external description of phenomena and the external for phenomena perception. **The Key word is subjective perceptions.** For example: The description of such as how much speed and the acceleration and how they change, but not why; what is the color and how it changes, but not why; how much is the length, weight, volume and how it changes, but not why it changes and so on. The Phenomenological approach fits and fully corresponds to Classical Science. It does not deal

with internal causes, but only with the external measurements, observations and results about an unknown internal process and movement. **The Key word is masking the fact as ignorance.**

Therefore the Parametric process is a process that can be **externally controlled** by an engineer, experimenter, or scientist by changing the parameters. It describes the external nature of the process, but not the internal causal process and driving forces. Thus the Parametric process connects the external environment and internal processes through a **third object - the experimenter**. Parametric modeling of a process does not describe the internal causes of the process, but only the external causes and factors in the form of variable parameters.

The parametric description of phenomena leads to long and **heavy mathematical equations** with many external parameters. They cannot touch the physical essence of the phenomenon and often give a very conditionally, inconclusive or doubtful results. Thus they distorted idea of the phenomenon. The parametric system is controlled by many external parameters. These parameters are introduced by the engineer or observer in order to track the behavior and stability of this system when changing various parameters.

The Classical Theory of Automatic Regulation establishes that in order to bring the parametric system into a state of stability (a stable operation mode) the **Negative Feedback** must be used. It returns the positive change from the output of the system as a negative change in the input of the system and thus it is stabilized (and vice versa). Therefore, any kind of oscillations (of amplitude, frequency or phase) at the output are stabilized by Negative Feedback to input.

We saw that the third participant intervenes as an objective device and (or) subject, an observe and (or) recorder. Thus the parametric method becomes subjective, not objective. It describes an unknown process - as it subjectively appears and is **interpreted** by the observing specialist. And even more-he uses observing and measuring instruments with limited capabilities. Therefore he third participant is interpretation. For these reasons, the knowledge obtained from the parametric method is distorted.

2. The Essence of Causal Approach

It should be expected that Causal process is almost opposite to Parametric process. According Wikipedia "A process that is not determined by a set of external parameters whose value can vary". That is why the Causal process is known as nonparametric process. Therefore the Causal process means process that **depends only reason –result** link, but not from external parameters. This means the Causal approach can include at least one **internal parameter** of relationship between reason and result.

The first example of a Causal phenomenon from everyday life is when an ordinary river **flows decelerating** across a plain. The water experiences **friction** in the boundary zone. Along the axis of the fluid flow, the movement is delayed and rectilinear with a speed (V). Delaying, the central rows expand and push the peripheral part outward. The central rows **emits** to periphery decelerating transverse vortices with an amplitude of (W). Therefore, the water in the peripheral line begins to separate and **swirl**. It forms whirlpools, swirling with a delay from the inside to the outside with an amplitude of (W). These peripheral vortices **carry rock** and sand mass from the inside to the outside and **form shoals and islands.** The reason is first: that the river moves with a delay and second that: the flow is separated into longitudinal layers, with the movement along the axis being rectilinear and the movement in the periphery being swirled.

The second example of a Causal phenomenon from everyday life is when an ordinary river **flows accelerating** down the mountain. Along the axis of the fluid flow, the movement is accelerating and rectilinear with a speed (V). The central flows accelerate and they **sucks** from periphery accelerating transverse vortices with amplitude (W) from the outside- inward. Therefore, the transverse vortices in the periphery with amplitude (W) are sucked accelerating inward. These peripheral vortices **suck in rock** and sand mass from the outside inward and undermine the banks and **form deep canyons**. The reason is first: that the river moves accelerating and second: that the flow is divided into longitudinal layers, where along the axis the movement is rectilinear and in the periphery the movement is swirling.

Axiom1 claims that an open vortex is one which, the monotone rotation (rot) of its tangent vector (rot E) along open loop the changes of this vector (div) is not zero: **div (rot E) is not equal to 0**. Thus the movement along an open vortex it turns out to be not uniform [3]. Therefore the new motions are with variable velocity or: **V is not constant.** Thus the new Axiom 1 describes an monotone accelerating or decelerating movement in an open vortex, which can be in a plane (2 D) or in a volume (3 D). As results we immediately obtain 4 kind movements: transverse vortices in plane (2D), which can be decelerating or accelerating and longitudinal vortices in volume (3D), which can be decelerating or accelerating. Axiom2 describes the pair of accelerating and decelerating (and in opposite direction) transverse vortices like a resonant system [3,4].

Axiom1 and Axiom2 makes the all Laws of new Theory true. They allow to deepen into the diverse qualities of movements. Thus they expand the quantity of different movements. They can describe motions that moves with monotone- increasing or monotone-decreasing velocity, in plane or in volume and **form fractals** as different packets, resonant systems and repeating groups.

Therefore the Causal (nonparametric) approach makes only internally control. It controls only the relation between velocity (V) of longitudinal vortex (decelerating or accelerating) and amplitude (W) of transverse vortices (emitted or sucked). This relation measures how transform velocity (V) to amplitude (W) (in deceleration movement) and in opposite- how amplitude (W) to velocity (V) (in acceleration movement). This transformation parameter is equal to so called **Golden proportion** (f = 1,62). Because it describes the internal processes and driving forces, it reveals real essence of the process [4,5]. For example in Law3

and Law4 this unique ratio as Golden proportion (f) shows that by what percentage the cause is reduced (for example the velocity V of the longitudinal vortex) by that percentage the result is increased (for example the amplitude W of the transverse vortex) and vice versa. Therefore the Causal approach does not connect the external environment and internal processes and does not include a third object - the experimenter. It describes only and entirely the internal causes of the process, and not the external causes and factors in the form of variable parameters. It excludes the subjective approach to experimentation, observation and interpretation of the results [6].

The Causal description of phenomena leads to **simpler mathematical equations.** They touch on the physical essence of the phenomenon and give a much clearer and more natural idea of the reason is that the Nonparametric approach of the phenomenon describes only the internal parameter or parameters that drive the change and transformation of the internal variables.

3. The Proof for Causal Approach

3a) Axiom1 and Axiom2

The essence of new Axiom1 is in the rotation (rot) along open loop, the monotone change (div) of its tangent vector (rot E) is not zero: **div (rot E) is not 0.**

Result: Axiom1 describes the movement along an open vortex which is not uniform.

Therefore, the new Axiom 1 describes an monotone accelerating or decelerating movement in an open vortex. It can be in a plane (2 D) or in a volume (3 D). It makes all Laws of the Theory of new Axioms and Laws true. It allows to deepen into the diverse qualities of movements and expands the quantity of different movements.

Result: Axiom1 describes open vortex in 2D and 3D which velocity (V) is not constant.

Axiom1 allows all Laws of new Theory to describe motion that moves with monotone- increasing or decreasing velocity or with variable velocity in plane (2D) or volume (3D) [2].

The essence of new Axiom2 is that the accelerating and decelerating transverse vortices form a resonant system of transverse objects, emitting and absorbing transverse waves that transfer matter and energy in two opposite directions.

Result: Axiom2 form resonant system by pair.

Axiom1 and Axiom2 allow to pack transversely and group this different move in different kind of Time -Spaces [3].

The **transverse vortices are packed in 2D as pairs**. One example is pair proton-electron: In mode of **pulsating in Time** the uneven transverse vortices in 2D **emit** transverse waves that propagate at a constant speed limited to the speed of light (c): **(v = const.** v_{max} = c = const).

In mode of **pulsating in Space** (in pair) the proton transfers energy to the electron directly through the direction of the acceleration of the transverse wave - from the proton to the electron. The accelerating transverse vortices form an transverse eccentric body of the proton with a Gravitational center in the first (I) quadrant. The decelerating transverse vortices form a strong eccentric body of the electro with a Gravitational center in the second (II) quadrant. According to Axiom 2, the accelerating and decelerating transverse vortices package in mutually orthogonal pair. They form a **resonant system** of transverse objects emitting and absorbing transverse waves. This is done when accelerating transverse vortex of proton emits transverse waves and decelerating transverse vortex of electron receive the transverse waves [4].

The **longitudinal vortices are packed in 3D in Funnels**. We saw that the transverse vortices form **variable Space sizes**, because transverse vortices arranged next to each other. But the longitudinal vortices (unlike transverse vortices) are packed by inserting themselves into each other longitudinally and form **variable Time sizes**. This happens according to the magnitude of their longitudinal speed as the fastest longitudinal spiral is inserted into the center of the accelerating Funnel, the slower spiral is wound outside it, and the slowest spiral is twisted into the periphery [4,5].

Result: The accelerating Funnel is formed as the fastest longitudinal vortex is sucked into the center, the slower spiral is wound outside it, and the slowest- into the periphery.

The accelerating vortices form accelerating Gravitational Funnels that suck Space from the outside towards themselves. The decelerating longitudinal vortices form decelerating Gravitational funnels that repel Space from themselves outwards. The uneven longitudinal vortices form longitudinal Funnels that work as Gravitational Space-Time [6].

Result: The uneven longitudinal vortices form longitudinal Funnels that work as Gravitational Space-Time.

This Gravitational Space -Time has completely different properties compared to the time-space of transverse waves. As a basis, this new Time-Space contains speeds much higher than the speed of transverse waves of light with (c). Even more - in longitudinal direction it can transport the Energy better than Matter and in transverse direction it can attract or repel Space around its [7,8].

3b) Law3 for transformation of quality of velocity (V) and amplitude of vortex (W).

The essence of Law3 is that in one and the same point of Space and at the same Time a complex vortex moves (in 2D or 3D) **decelerating** as it transforms the quality of the current Velocity (v_n) of longitudinal vortex to quality of the Amplitude (w_n) of the transverse vortices by the Golden proportion (f = 1.62). And in inverse: the complex vortex moves (in2D or 3D) **accelerating** as it transforms the quality of the current Amplitude (w_n) of transverse vortex to quality of the current Velocity (v_n) of the longitudinal vortices by inverse Golden proportion (f = 1:1.62).

In decelerating vortex

In decelerating vortex the redistribution of the Velocity is as acceleration and Amplitude is as mass. The algorithm is follows:

as much percent parts (f = 1.62) of energy of the current velocity (v_n) is returned, as much percent parts of a mass is added to the current amplitude (w_n) of transverse vortex. During several steps (n) the current velocity (vn) will decrease and reduces (fn) times or will equal to: $v_n = V_0/f^n = V_0 .(1/f^n) = V^0 .(1/ 1.62^n) = V_0 .(0.62)^n$, where V_o is starting value. During the same several steps (n) the current transverse vortex (w_n) increases and (f^n) equal to : $w_n = W_o. f^n = W_o. (1,62)$ n, where W_o is starting value.

Result: For decelerating vortex the current velocity is equals to $v_n = V_o.(0.62)^n$., and current amplitude is equals to: $w_n = W_o.(1.62)^n$

Thus the decreasing current velocity (V_o/f^n) returns energy of longitudinal vortex back (by emitting back) and multiplies current amplitude (w_n) to (fn) times. In decelerating vortex is transformed the quality of the current Velocity (v_n) of longitudinal vortex to quality of the Amplitude (w_n). Thus the amplitude of current transverse vortex (w_n) receives one and the same proportion: wn= ($W_o.f^n$) (by emitting back) through returning energy of current velocity: $v_n = (V_o/ f^n)= V_0./1,62^n = V_0.(0,62)^n$, which is reduced ($1,62^n$) times, where V_o is starting value. The essence of Golden proportion (f) according Law3 in the decelerating vortex. It has a single internal parameter and it is named Golden proportion (f) (Figure1d) and is equal to $(f^2)^n = w_n /v_n$.

Result: For decelerating vortex Golden proportion is equal to $(f^2)^n = w_n /v_n$

Example for decelerating vortex:

In first point if transformation (n = 1): $(f^2)^1 = w_1 : v_1 = 1.62: 0.62 = 2.62$; $f^2 = 2.62$; f = 1.62,

In second point if transformation (n = 2): $(f^2)^2 = w_2 : v_2 = 2.62: 0.38 = 6.89$; $f^4 = 6.89$; f = 1.62,

In third point if transformation (n = 3): $(f^2)^3 = w_3 : v_3 = 4.24: 0.24 = 17.67$; $f^6 = 17.67$; f = 1.62.

Essence of Golden proportion:

The Theory of new Axioms and Laws describes minimum 2 or more not homogeneous motions in one point and in the same time in 2D or in 3D. They are like complex motions because there are longitudinal and transverse. Thus they are linked and depending by only 1 internal transforming parameter (f). This single internal parameter (f) is the proportion called the Golden proportion (f) (Figure1c,d).

Result: Only Golden proportion (f) fulfills the condition: 1+ (1/f) = f.

Golden proportion for decelerating vortex:

For essence of Golden proportion for decelerating vortex in2D:

The essence of Golden proportion for velocity (V) and amplitude (W). For decelerating vortex the velocity (V) equation is: (1/V)-1 = V. This equation have 2 roots: -1.62 and 0,62. Because current velocity decreases the root (vn) of equation:

$V^2 + V-1 = 0$ have to take 1 positive value equal to **0,62.** Therefore: $v_n = V_o.(0.62)^n$.

The amplitude (W) equation is: 1+ (1/W) = W. This equation have 2 roots: +1.62 and -0,62. Because current amplitude increases the root (wn) of equation: $W^2 – W-1 = 0$ have to take 1positive value it equal to **1.62.** Therefore: $w_n = W_o.(1.62)^n$.

Result: For decelerating vortex (1/V)-1 = V; (1/W) +1 = W.

In accelerating vortex

In accelerating vortex the order is opposite: The current amplitude of transverse vortex (w_n) returns the same amount of mass that positive acceleration of velocity (v_n) of the longitudinal vortex sucks it to itself (Figure1a). Thus while current velocity (v_n) increases (f^n) times and equal to: $v_n = (V_o.f^n)= (V_o.1,62^n)$, where V_o is starting value. The current amplitude reduces (f^n) times (by sucking ahead) and equals to:

$w_n = (W_o / f_n) = (W_o / 1,62^n) = (W_o . (0,62)^n$, where W_o is starting value.

Result: For accelerating vortex the current velocity is equals to $v_n = V_o.(1,62)^n$., and current amplitude is equals to: $w_n = W_0.(0,62)^n$.

Thus the increasing current velocity ($V_o.f^n$) sucks energy by longitudinal vortex and divides current amplitude (w_n) to (f^n) times(W_o/f^n). Thus the amplitude of current transverse vortex (w_n) receives one and the same proportion: $w_n = (W_o.(1/f^n$ () (by sucking by longitudinal velocity and of current velocity: $v_n = (V_o. f^n) = V_0.(1,62)^n$, which is reduced, where V_o W_o are starting values. $w_n = (W_o.(1/f^n): (V_o. f^n) = (f^2)^n$.

Result: For accelerating vortex Golden proportion is equal to $(f^2)^n = v_n /w_n$

Example for accelerating vortex:

In first point if transformation (n = 1): $(f^2)^1 = v_1 : w_1 = 1.62: 0.62 = 2.62$; $f^2 = 2.62$; f = 1.62,

In second point if transformation (n = 2): $(f^2)^2 = v_2 : w_2 = 2.62: 0.38 = 6.89$; $f^4 = 6.89$; f = 1.62,

In third point if transformation (n = 3): $(f^2)^3 = v_3 : w_3 = 4.24: 0.24 = 17.67$; $f^6 = 17.67$; f = 1.62.

Essence of Golden proportion for accelerating vortex in 2D:

This single internal parameter of proportion(f) is called Golden proportion (f) (Figure1c,d) It fulfills the unique condition (1+ (1/f) = f).

Result: Only Golden proportion (f) fulfills the condition: 1+ (1/f) = f.

For accelerating vortex the velocity (V) equation is: 1+ (1/V) = V. This equation $V^2 –V-1= 0$ has 2 roots: 1.62 and (-0,62). Because current velocity increases the root (v_n) of equation:$V^2-V-1 = 0$ have to take1 positive value it equal to **1.62** .Therefore : $v_n = V_o.(1,62)^n$.

The amplitude (W) equation is: (1/W)-1 = W. This equation $W^2 + W-1 = 0$ has 2 roots: -1.62 and (+0,62). Because current amplitude decreases the root (wn) of equation: $W^2 + W-1 = 0$ have to take 1 positive value it equal to **0,62.** Therefore: $w_n = W_o.(0,62)^n$.

Result: For accelerating vortex (1/V) +1 =V; (1/W)-1=W.

Properties of reason-result link

It exists **a Positive Feedback** between output (V of longitudinal vortex) and input (W of transverse vortex). The accelerating longitudinal vortex un interrupted sucks in more and more transverse vortices from outside that accelerate further the longitudinal vortex more and more and so on (Figure 2a). Thus the longitudinal vortex increases of acceleration and at the same time it increases self - mass at the exit .The increasing the acceleration in exit pulls and increase of the acceleration and mass to the entrance to inward . This increasing in exit make increasing in entrance through so called the Positive Back of the amplifying connection. This mechanism of amplification is known in Cybernetics as Positive Feedback (Figure 2b).

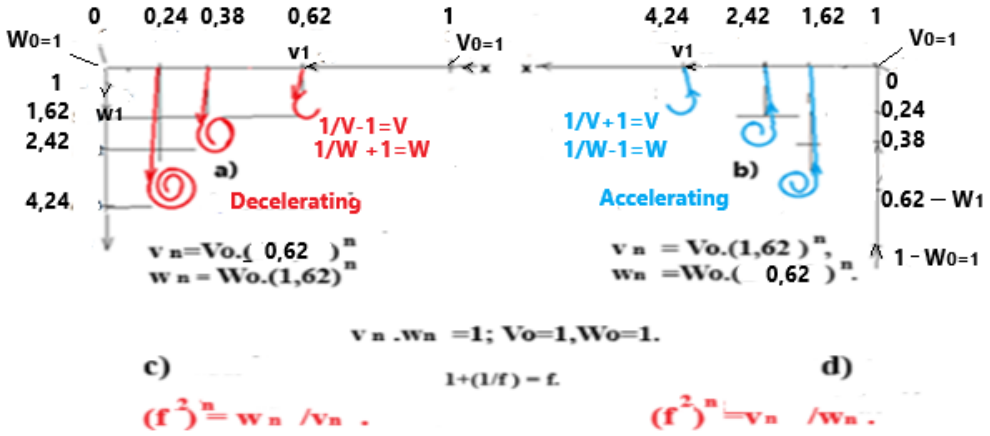

Figure 1: 1a) Decelerating movement, 1b) Accelerating movement, 1c) Golden Proportion: $(f^2)^n = w_n / v_n$ for dec. vortex, 1d) Golden Proportion: $(f^2)^n = v_n / w_n$ for acc. vortex.

It exists an Avalanche process between output (V of longitudinal vortex) and input (W of transverse vortex) because this process cannot be stopped until it reaches its end. Law 3 shows that the decelerating longitudinal vortices is decelerated and accelerating longitudinal vortex is accelerated only by a single coefficient-Golden proportion (f) [3]. Both processes are avalanches, are uninterrupted and spontaneously. At the end of both avalanche process (decelerating by emitting and accelerating by sucking) is entered a **saturation phase** and the transfer of energy and mass ceases (Figure 2b).

For example: According Positive feedback in accelerating vortex in every next (i) point (i = n), the current velocity (v_n) of longitudinal vortex increases as much ($V_o.f_n$) as much the current amplitude (w_n) of transverse vortex decreases ($W_o . (1/ f_n)$, (Figure 2b).

Result: These uneven movements working in complex describe by Causal process using Positive Feedback.

For example: A main accelerating longitudinal vortex sucks in with acceleration (a) the transverse vortices, called Primary transverse vortices. In start moment (t = 0) acceleration: $a_o = 0$. At in the end moment ($t = t_n$) the acceleration of the Primary transverse vortex becomes maximum: $a_{max} >> 0$. In the same time the current amplitude (w_n) becomes almost zero: $w_n = W_o.(0,62)^n$ (Figure2b).

Result: The *acceleration* of each primary transverse vortex increases from 0 to max. and adds to acceleration of main accelerating vortex.

Result: The mass of the primary transverse vortices (in quanta) is added to mass of main longitudinal vortex accelerating it further more and more.

The accelerating movement is an excellent example of the avalanche process. The reason is that in every next cycle the accelerated longitudinal vortex again sucks next portion (quantum) of the primary transverse vortex and so on.

Result: The Positive Feedback turns a usual process to an avalanche process.

Only in Nature we can observe generation processes instead simple acceleration or simple deceleration in artificial system. The Positive Feedback turns the process of amplification to a process of generation.

Result: The avalanche process turns an Amplifier process to a Generator process.

Therefore using this algorithm man can construct an **Energy Generator.**

Law4 for conservation of Power:

In Technical structures and other Artificial (not Natural) structures there are two **qualitatively equal** movements at the same time (moment) and in one and the same place (point).

In Classic Mechanics the **simultaneous operation** of two homogeneous vectors is equal **to the sum** of these vectors. In Classic Mechanics the simultaneous operation of two homogeneous vectors is equal to the sum of these vectors.

Result: The Key word is homogenous vectors.
The vectors describe one and the same homogenous movements. In the Classical Mechanics the simultaneous action of these two homogenous variables ($V(t_n)$ and $W(t_n)$) in 2D must describe by **geometric addition** in 2D ($V(t_n) + W(t_n)$).

Result: The simultaneous action of two homogenous variables ($V(t_n)$, $W(t_n)$) describes by geometric addition in 2D of these vectors: ($V(t_n) + W(t_n)$). These vectors describe one and the same homogenous movements.

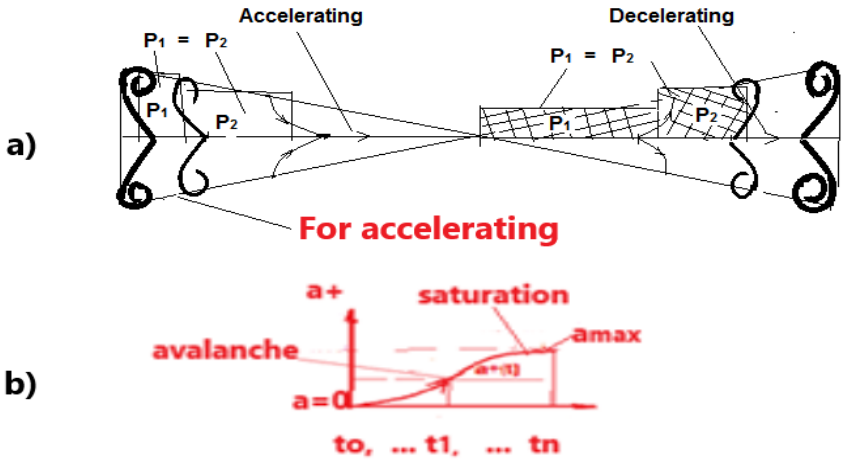

Figure 2: Positive Feedback, 2a) Accelerating-Decelerating vortex, 2b) Avalanche process

In Nature there are two **qualitatively different** movements at the same time (moment) and in one and the same place (point). The reason is that the Positive Feedback (Law3) turns the process from discrete to avalanche kind of process. (Figure 2b).

Result: The Key word is not homogenous movements.
These qualitatively different movements are named not homogenous movements in Nature.

The Theory of new Axioms and Laws describes these not homogenously movements ($V(t_n)$, $W(t_n)$). According Law3 the transformation of quality the one vector (V) into a vortex (W) (and vice versa) is a nonparametric process. This transformation is done by Internal Law using the single internal parameter of Golden ratio (f) (but not by setting parameters from outside).Thus in Nature is observed the nonparametric transformation of velocity (V) of longitudinal vortex to amplitude (W) of transverse vortex .They are not homogenously movements. The velocity (V) demonstrates longitudinal unevenly movement and describes by velocity of vector in line (1D). But amplitude (W) describes transverse unevenly movement by amplitude of curve in plane (2D). According the Theory of new Axioms and Laws the simultaneous action of these two not homogenous variables (V (t) and W (t)) must describe by the product ($V(t_n).W(t_n)$). Thus the simultaneous action of 2 not homogenous variables must describe by multiplication: $V(t_n).W(t_n)$.

Result: The simultaneous action of 2 not homogenous variables ($V(t_n)$, $W(t_n)$ describes by their product: $V(t_n).W(t_n)$.
The essence of Law4 is: For an uneven (accelerating or decelerating) longitudinal vortex with current velocity (V_n) and current amplitude of the transverse vortices (W_n), the product (V_n). (W_n) is a constant in every (i) step and it is equal to the power (P) of the uneven longitudinal vortex : **$P = (V_n) . (W_n) = const.$,** where $n = 0,1, 2\ldots, \infty$.

Result: For decelerating vortex current velocity decreases (-V) but amplitude of transverse vortex increases(+W) so that power: **P = (-V).(+W) = const.**

Result: For accelerating vortex current velocity increases (+V) but amplitude of transverse vortex decreases(-W) so that power: **P= (+V).(-W)= const.**

We notice that the velocity (V) and amplitude (W) are **mutual orthogonal** in Space and in Time. This means that in Space the velocity (V) is perpendicular to the amplitude (W). And dynamic in Time of the vector (V(t) and of the amplitude (W(t) are de-phased on right angle.

Result: Two not homogenous movements (V(t) and (W(t)) are mutual orthogonal in Space and in Time
Orthogonal in Time means that when V(t) increases the W(t) decreases and inverse. The reason is that equations from roots

from Figure1a) and Figure1b) are mutual orthogonal in Space and in Time. **In Space:** The direction of velocity of the longitudinal vortex (V) is perpendicular to the direction of the amplitude (W) of the Primary transverse vortices and, respectively, to the direction in which the transverse vortices (Figure2a). **In Time:** The velocity (V) and amplitude (W) pulsate in Time in phase of 90O [4].

4. Conclusion

a) What does the parametric description miss?

What does the parametric description miss? The parametric description of phenomena is closely related to the process of observation. The more the devices and methods of observation are improved, the more the description of the phenomenon is improved (the Phenomenological description). But this observation will always remain external.

It is good to observe from the outside, but it is wrong that conclusions are made about total internal connections and undeniable structures.

Very often the impossibility of reaching this knowledge is replaced by probability distributions of parameters and objects. They only provide external knowledge (quantitative description) about the objects and do not explain their structures (qualitative description).

These conclusions are very often incomplete and even wrong. They direct further research to a subjective and incorrect direction. The fact that the objects and phenomena in the world are objective. This means that they not depend from their description by man.

b) Just 2 examples for Causal approach according Theory of new Axioms and Laws

Example1: The electron rotates around the proton not because of an outlined ellipse in Space has a minimal **Potential** energy.

The order is just in opposite: According Axiom1 the reason the electron to rotate around the proton due to the strong **eccentricity** of its open decelerating transverse vortex that moves outward – in. The electron's Gravity center is moved than Geometric center and Gravity center is located in **second** quadrant. According Axiom1 the proton also has eccentricity of its open accelerating transverse vortex that moves inward-out. But eccentricity is much less than in electron. Proton's Gravity center is moved than its Geometric center and it is located in **first** quadrant .But the proton has much more mass than electron (approximately 2000 times more) . Therefore the electron having big eccentricity, less mass and Gravity center in second quadrant rotates around proton having less eccentricity, bigger mass and Gravity center in second quadrant. Thus the strong eccentric electron rotates around less eccentric proton. According Axiom2 the electron and proton are mutually orthogonal and work in resonance by exchanging matter and energy. Thus Electron-proton form a mutually orthogonal resonant system[6].

Example 2: Gravitational repulsion or attraction are not due to the **distortion** of Space according to the Classical Theory of Gravity

The order is just in opposite: The reason is negative or positive **acceleration**, but result is repulsion or attraction and following distortion of Space, The Gravitational repulsion is due to negative acceleration of their transverse structures or longitudinal Funnels. Gravitational attraction is due to positive acceleration of their transverse structures or longitudinal Funnels.

Therefore, it is not surprising that to describe the Nature phenomena we have to use nonparametric approach. The reason is that it uses **causal description** for internal structure of elementary particles, internal structure of Gravity phenomenon or "Free energy", etc. The causal description means to put the reason before and consequence after [6,7].

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