International Journal of Mathematics and Physical Sciences Research ISSN 2348-5736 (Online)
Vol. 8, Issue 2, pp: (93-100), Month: October 2020 - March 2021, Available at: www.researchpublish.com

OVERTURNING OF INFINITESIMAL CALCULUS AND RESTORATION OF THE MATHEMATICS IN CONNECTION WITH THE COSMIC THEORY "THE IDION"

ALEKOS CHARALAMPOPOULOS

Abstract: **The methodology is defined, reports principles, axioms, dogmas and applications for the different theories in philosophy, physics and mathematics and it maybe is the greatest methodology done.**

The total applying of the logic, leads to the finish of the infinitesimal calculus, because the dx tenses but never arise to the zero. The formula of the derivative with limit dy/dx, is replaced with small differences Δy/Δx, and the new formula has the same practice results. But the implement of the new formula, gives results very different from the derivatives of the stated mathematics and already it is separated in means of the derivatives we are finding with the formula we are propose, and the arising equation they find with the formula we have defined, very different from the before derivative. Reverses of the arising equations are the integrals. Now, the arising equation for the trigonometric functions, already are different from their stated derivatives and the integrals are very much different from the stated integrals, which have been in force till today.

The right implement of the logic and the derivative as we are moderating, gives centripetal, orbital and tangent velocity in the normal cyclic motion, as centripetal, orbital and tangent acceleration. The new theory finds justification of the atomic theory of the cosmic theory THE IDION, because the magnetic field producing of every bubble, accelerates in tangent the motion of the other bubble, it has centripetal force and it is having tangent acceleration. In the atom, there is the attraction of the electric carriers it is in reverse cubic power of radius and it is combining with the centripetal acceleration. The attraction force is coming from the magnetic field of the charged rotated bubbles, which have magnetism m. The magnetic force is in reverse square power of radius and it isn't relative to the centripetal force, they have the electric carriers and for this, the magnetic fields create tangent acceleration.

Keywords: **philosophy, physics and mathematics, centripetal, normal cyclic motion, THE IDION.**

1. INTRODUCTION

The not total implement of the logic and the negligence, have led to the creation of the infinitesimal calculus, which is now totally overturns. The restoration –correction will lead to chaotic superior mathematics, in some cases, but correct mathematics, as they ought to be.

They are formulated mathematics begginings as the distance, the velocity and the acceleration, which are now distinctively formulated and not as the stated limits, that is $\Delta\mathbf{x}$, $\Delta\mathbf{x}/\Delta t$, $\Delta\mathbf{x}/\Delta t^2$. One of these begginigs is the centripetal acceleration.

The connection is coming from the cosmic theory THE IDION[1], is that it accepts a very small distinctive distance of the time, maybe $\Delta t=10^{-31}$ sec, into which Goddess penetrate the law of nature, in reality, the universes and the center of control of anything. The time is the accumulation of these distinctive distances and every motion that is product of these

[1] THE TOTAL THEORY, International Journal of Mathematics and Physical Sciences Research, April2020 - September2020

infinitesimal small motions, that happen between their distances Δt. Into the $\Delta t=10^{-31}$ sec there is inactivity, iced motion. This motion is product from jumps of the motionless inactive sizes, vectors or graduations. And the time is motion, uniformed repeated motion is the unit of the time, it is the period T of the uniformed motion. So, as it happens into the time, the velocity of a material point or its acceleration, it is peculiar motion.

2. METHODOLOGY

The mathematics used symbols, consequently its logic is symbolic. But as they are using symbols, its logic becomes short and dense and it must be sting.

For the writing of this work, they are used the logic laws, as they were formulated by Aristotle in ORGANON (organon=logic) and the others ancient philosophers[2].

The ancient philosophers, for the formulating of their philosophes, they formulated the principles (they are propositions, pro-existing, initials). Euclids, in the formulating of his geometry, used applications. In some theories of physics, they are used axioms. As Pyrron Helieus formulated, the philosophers have dogmas and they build their theories, that is they have principles and applications.

For the construction of the mathematics theories, they are needed some definitions. The definitions are the propositions for the developing of mathematic logic. So, here, there are formulated definitions for the developing of the theories, of the sting, dense and symbolic logic.

THE MISTAKES OF THE INFINITESIMAL CALCULUS AND THE RESTORATION

The infinitesimal calculus based on in the meaning of the limit. So a function y=f(x) tenses to a number, when the price of its variable tenses to a concrete price. If the field of the prices of the x tenses to the x_0, then it is $\lim_{x\to x_0} f(x) = L$, if for every ε> 0, there is corresponding δ> 0, so that for every x, $0 < \lfloor x - x_0 \rfloor < \delta \ \rightarrow \lfloor f(x) = L < \varepsilon \rfloor$

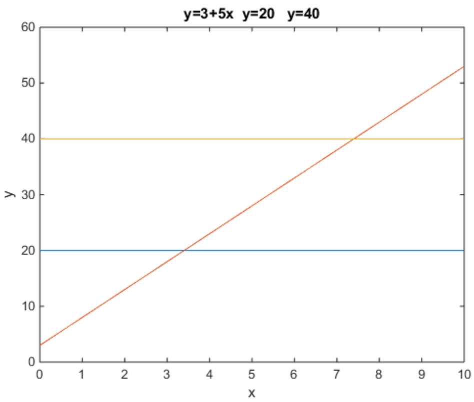
See here, 0<|Δx|<δ. The |Δx|>0. In infinitesimal calculus |dx|>0.

The derivative is in according to the stated theory, $f' = \frac{df(x)}{dx}$ $=\lim_{\Delta x\to 0}\frac{f(x+\Delta x)-f(x)}{\Delta x}$

If, $f(x)=cx^0$ =c (constant), then, f´(x)=$\lim_{\Delta x\to 0}\frac{c(x+\Delta x)^0 - c(x)^0\ )}{\Delta x}$ =0, but and the stated mathematics give f´(x)=0

If f(x)=3+5x, then f´(x)=$\lim_{\Delta x\to 0}\frac{3+5(x+\Delta x)-3-5x}{\Delta x}$ =lim5 = 5

Plan 1



In the plan f(x)= y=3+5x , $f(x)=20x^0$, $f(x)=40x^0$. The first has gradient 5:1,and the constants have gradient zero.

We will find some mistakes bellow, but now we can take the two above results, while overturning the mean of the limit and defining the derivative as,

$$f'(x) = \frac{\Delta f(x)}{\Delta x} = \frac{f(x+\Delta x)-f(x)}{\Delta x}$$

[2] I hope this here methodology, is the most important methodology writed

This definition abrogates the infinitesimal calculus, because the derivative is not a limit, which already has not any mean for the infinitesimal calculus, which is totally overturning, and it is restoring with usual mathematics. If you apply this formula, you will get the same results, such these from the two examples above, just like the infinitesimal calculus which has been applied and now, it is remaining, that the derivative is gradient of any line, except from the constant lines with zero gradient. So, we're already ready to the control of the complex derivatives. Generally, this derivative is the change of the function y, to the change of the variable x, it is rhythm of change.

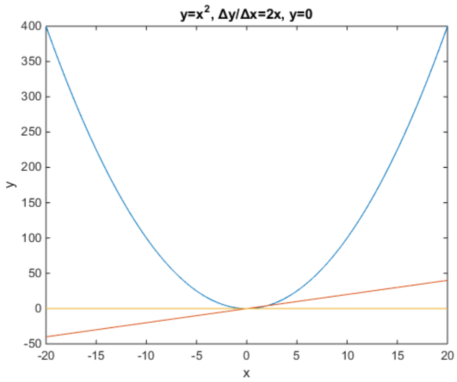
SAMPLING CONTROL ON DERIVATIVES OF FUNCTIONS

We consider the function f(x)=y= x^2. The derivative in according to the given formula is,

$$f'(x) = \frac{(x+\Delta x)^2 - x^2}{\Delta x} = 2x+\Delta x$$

The infinitesimal calculus would give f′(x)=2x+dx while considers the dx=0, but and this is closed off the sting definition of the limit. See the plan of f(x)=y= x^2 and f′(x)=2x which is given by infinitesimal calculus,

Plan 2

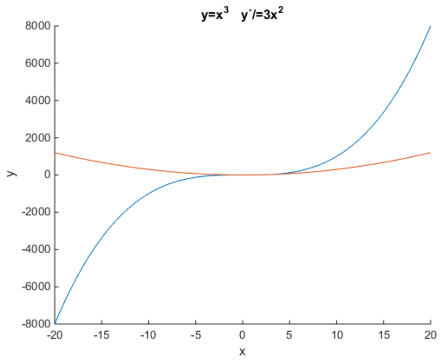


As you see, the y=x^2, has a minimum point, at the y=0, where it tangents the y=x^2 of the constant y=0 (zero) and in the same point, it is cut by the y′=2x. So, the derivative of the infinitesimal calculus y′=2x cut the y=x^2 in the minimum point. If we increase the x on $\Delta x \cong -0.01$, then it is tangent of the y=x^2 right of the minimum cut, which is happening the cut with the derivative of the infinitesimal calculus y′=2x. So, we must accept the existing of, $-\Delta x \neq 0$. This argument closes the derivative off y′=2x+dx, of infinitesimal calculus, because dx→0 and we are fiound $\Delta x \neq 0$ and they defined $dx \neq 0$.

But the tangent in this case, it is not tangent on the extremity of the curve y=x^2 , not to the turning point.

See now and the y=x^3. It is, $y' = \frac{(x+\Delta x)^3 - x^3}{\Delta x}$ =$3x^2+3x\Delta x+\Delta x^2$. The infinitesimal calculus gives, y′=$3x^2$. We are giving the plan of the y=x^3 and y′=$3x^2$, which is the derivative in according the stated mathematics,

Plan3



The y=x^3 has tangent on the its turning point with the y′=$3x^{2,}$ but if we calculate and the Δx that it we indicated it is not infinitesimal, then the two curves are cut to a point, where it is not going on maximum, or minimum, or turning point, of the y=x^3.

Let us examine now, the $y=k/r^2$. The derivative is,

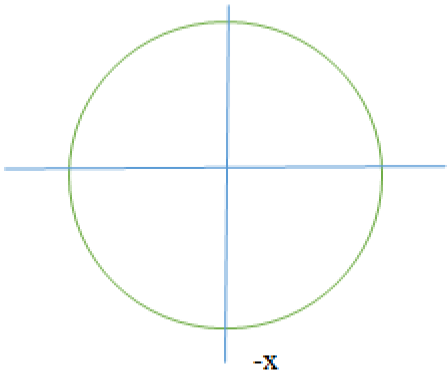
$$\frac{\Delta y}{\Delta r}=\frac{k(r+\Delta r)^{-2}-kr^{-2}}{\Delta r}=\frac{\frac{k}{r^2+2r\Delta r+(\Delta r)^2}-\frac{k}{r^2}}{\Delta r}=\frac{k}{(\Delta r)r^2+2r(\Delta r)^2+(\Delta r)^3}-\frac{k}{(\Delta r)r^2}$$

In the position of the Δ would be the d if we implement the infinitesimal calculus, and of course it is no case $dy/dr= -2kr^{-3}$,that it is according to the stated mathematics.

The same mistakes of the infinitesimal calculus, you'll find in many functions.

PROOF OF OVERTURNING OF INFINITESIMAL CALCULUS

Plan4

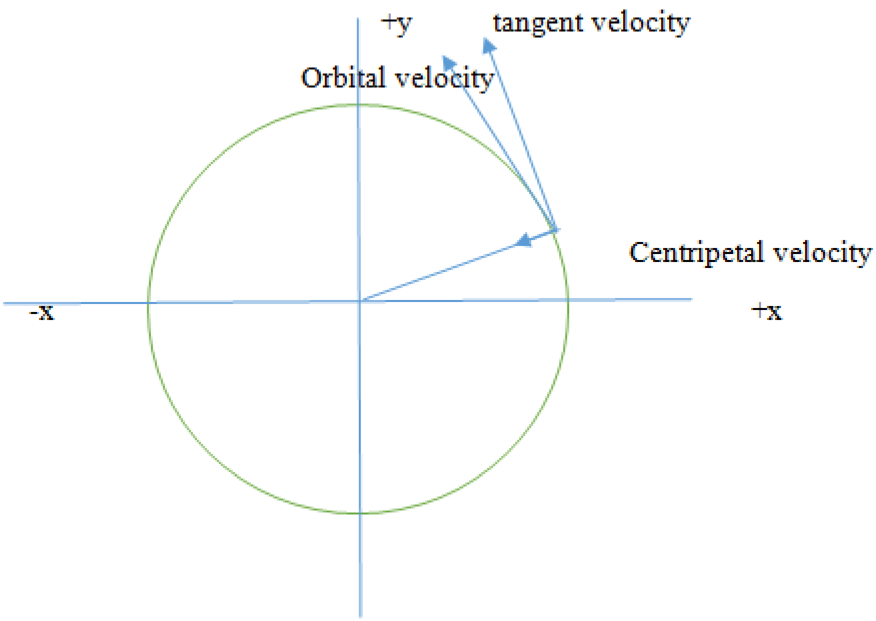


We consider constant cyclic velocity, where it is in force $y=A\cos(\omega t+\varphi)$. The infinitesimal calculus gives $y'=-A\omega\sin(\omega t+\varphi)$ and $y''=-A\omega^2\cos(\omega t+\varphi)$. In the reality, when the velocity $A\omega=v$ is maximum $(\sin(\omega t+\varphi)=1)$, then the infinitesimal calculus gives $\cos(\omega t+\varphi)=0$, that is the acceleration $A\omega^2=a$, is zero. But, when on the axis y the velocity is maximum, and the acceleration is maximum, and it is proof of the overturning of the infinitesimal calculus.

VELOCITIES AND ACCELERATIONS ON NORMAL CYCLIC MOTION

We take the normal cyclic motion of a point, with center the zero point of the Cartesian coordinates,

Plan5



The orbital velocity is $\mathbf{v}=2\pi\mathbf{R}_0/T$, where T is the Δt of the period of the motion and R_0 the radius of the orbit.

On the axis y, x they are forming circles with $R^2= x^2 +y^2$. $R=\sqrt{x^2+y^2}$. And in according to the found,

$$\frac{\Delta R}{\Delta x} = \frac{\sqrt{y^2+(x+\Delta x)^2-x^2-y^2}}{\Delta x} = \sqrt{\frac{2x}{\Delta x}+1}$$

Here we use[3] the $\frac{\Delta R}{\Delta x} = \frac{\sqrt{y^2+(x+\Delta x)^2-x^2-y^2}}{\Delta x} = \frac{\sqrt{y^2+(x+\Delta x)^2}-\sqrt{x^2+y^2}}{\Delta x}$

And, $\frac{\Delta R}{\Delta y} = \frac{\sqrt{(y+\Delta y)^2-y^2}}{\Delta y} = \sqrt{\frac{2y}{\Delta y}+1}$

And $\Delta R/\Delta x = \Delta R/\Delta y$.

Then, $\frac{\Delta y^2+\Delta x^2}{\Delta R^2} = 1 = \frac{2}{\frac{2x}{\Delta x}+1}$

And $x=\Delta x/2$. This equation is in force for all the circles, where the distance x changes. But, we are defining the $x=R_0$, $\Delta x=2R_0$. In infinitesimal calculus the Δx would be dx and the $\frac{\Delta R}{\Delta x} = \frac{\sqrt{(x+\Delta x)^2-x^2}}{\Delta x} = \sqrt{\frac{2x}{\Delta x}+1}$ would be not determine.

As you show in the plan of normal cyclic motion, there is an orbital velocity $\mathbf{v_o}=2\pi\mathbf{R}_0/T$, a centripetal constant velocity $\mathbf{v_c}$ and concequantly a tangent velocity $\mathbf{v_t}$.

The centripetal velocity is, $\frac{\Delta x}{\Delta t} = \frac{\Delta y}{\Delta t}=2R_0/\Delta t$. But the $2R_0$ is the diameter of the circle of the normal motion and it is corresponding in π angle and $\Delta t=T/2$. Then,

$$\mathbf{v_c}= \Delta\mathbf{x}/\Delta t= 4\mathbf{R}_0/T= 2.2\pi\mathbf{R_0}/\pi T= (2/\pi)\mathbf{v_o} \text{ as } v_o=2\pi R_0/T$$

But the $\Delta x=2|\Delta x'| =\Delta x'-\Delta(-x')$ because in Cartesian coordinates, left of 0 the x there are the negative and then the real is $\Delta x/2$, and $\mathbf{v}_c=\mathbf{v}_o/\pi= 0.3183\ \mathbf{v_o}$

And the tangent velocity is, $v_t=v_o^2 - (\frac{v_o}{\pi})^2= 0.948\ \mathbf{v}_o$. The tangent velocity touches the point $\Delta t/2 =R_0$ for the coordinates y,x and it is vertical to the R. The Δt for the orbital velocity, is beginning of this point and it is finishing on the orbit it is going on.

As from centripetal velocity is defined, there is and centripetal acceleration in $\Delta x'=\Delta x/2=R_0$, where the $\Delta t=T/4$ and

$$\Delta\mathbf{x}'/\Delta t^2 =\Delta\mathbf{x}'/(T/4)^2=8.(2\mathbf{R}_0)/T^2= (8/\pi)\mathbf{v}_o/T=(4/\pi^2)v_o^2/\mathbf{R}$$

Then the centripetal acceleration is $\mathbf{a}_c= (4/\pi^2)\ v_o^2/\mathbf{R}$. This centripetal acceleration is vertical to the tangent velocity $\mathbf{v}_t$ because the axis x is vertical to the tangent.

See[4] how the stated science proved the centripetal acceleration.

We put $\mathbf{v}_o=d\mathbf{R}/dt= (dR/ds)(ds/dt)$, where $\mathbf{s}$ is the vector, the distance of the orbit of the moved in the normal cyclic motion. But $dR/ds = \boldsymbol{\varepsilon}$ the unique vector of the orbital velocity, it is,

$$\mathbf{v}_o =v\boldsymbol{\varepsilon}$$

The acceleration is $d^2v_o/dt^2 =(dv/dt)+ v d\boldsymbol{\varepsilon}/dt$ where $dv/dt=0$. We have,

$$v_o d\boldsymbol{\varepsilon}/dt= v_o(d\varepsilon/ds)(ds/dt)= (v_o^2/R)\mathbf{n} \quad (ds/dt=v_o\ ,\ d\boldsymbol{\varepsilon}/ds= \mathbf{n}/R).$$

The same results we would take and with $\Delta x,\Delta t$.

---

[3] This equation is in force, after actions, when $x=-\Delta x/2$. This is equal and opposite of the $x=\Delta x/2$, we are finding bellow and because x=R, then it is in force and this equation we are using. Remember that we use the $R^2=x^2+y^2$, then the x^2 is the same, and for the two cases $x=-\Delta x/2$ και $x=\Delta x/2$

[4] THEORITICAL MECHANICS I Chatzidimitriou p.1-15

But in above analysis the **n** is the unique vector vertical to the orbital velocity v_o, but the centripetal force we proved is vertical to the tangent velocity. See again the plan of the three velocities in the normal cyclic motion and you will formulate that the right centripetal is vertical to the tangent velocity, but the centripetal force the stated physics proved, is vertical to the orbital motion and velocity. So, there is acceleration on the vertical to the radius, the $\mathbf{a}_t$ as the $\mathbf{v}_t$, the,

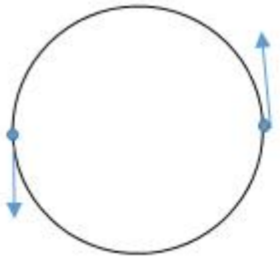
$$\mathbf{a}_t=(a_o^2-a_c^2)^{1/2}=\mathbf{a}_0(1-(4/\pi^2))$$

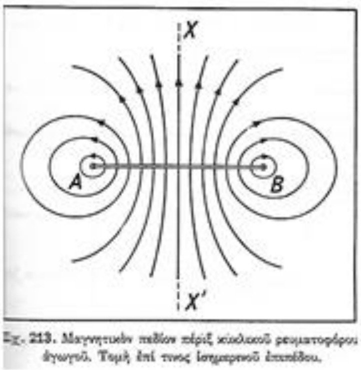
CONNECTION WITH THE COSMIC THEORY "THE IDION"

In "THE THEORY OF CREATION[5]", we introduced the electric and the magnetic fields in the hydrogen atom. In the atom, two bubbles of rare ether, create electric carrier, the one opposite to the other and as they are attracted, so, they are attracted with equal force, because they are created in the revolving around the center of their mass, electric currents where the magnetic field, attracts each the other. The electric currents have magnetism m and the magnetic force is in the reverse of radius square.

The bubbles are revolving around the center of mass and around them self and they are getting on the around ether, which has small viscosity. The flowing of the ether corresponds to the magnetic lines.

Pan 6





Atom of hydrogen and the magnetic lines, if you extend the lines of the one bubble, they are cut vertically the revolving velocity of the other bubble. The bubbles A,B have velocity vertical to the page.

So, the magnetic field of the one bubble, falls vertically on the tangent velocity of the other bubble and it creates the one centripetal force (the other is created of the electric charge), $\mathbf{F}_c = e(v_t x B)$. And it creates and the acceleration on the vertical, with the reaction of the magnetic field on the centripetal force, $\mathbf{a}_t = e(v_c x B)$.

The small viscosity of the ether, creates force of resistance to the accelerations of bubbles, so, the velocities are now constant, (F=bv , and v=F/b= constant)

THE ACCELERATION IN POLAR COORDINATES

In polar coordinates, the stated physics proved the acceleration,

$$\mathbf{a}=(\frac{d^2R}{dt^2}-r\left(\frac{d\theta}{dt}\right)^2\boldsymbol{e}_R+\frac{1}{R}\frac{d}{dt}(R^2\frac{d\theta}{dt})\boldsymbol{e}_\theta$$

This is used for the description of the motion of the planets, and that we used in THE TOTAL THEORY, for the description of the planets motion or the atom of hydrogen. The same is proved if in the position of the d, we put Δ.

TROCONOMETRIC DERIVATIVES

The function of the sine, is y=sinθ. And,

$$\frac{\Delta y}{\Delta\theta}=\frac{\sin(\theta+\Delta\theta)-\sin\theta}{\Delta\theta}=\frac{\sin\theta\cos\Delta\theta+\cos\theta\sin\Delta\theta-\sin\theta.}{\Delta\theta}=\sin\theta\{(\cos\Delta\theta-1)/\Delta\theta\}+\cos\theta(\sin\Delta\theta/\Delta\theta)$$

[5] International Journal of Mathematics and Physical Sciences Research, October2020-March2021

But[6]

1>sinθ/θ>cosθ and because cosθ= 1-2sin^2(θ/2), then (cosθ-1)/θ=-2sin^2(θ/2)/θ =- (sinθ/θ)sinθ

Then, if you see how are they proved in the reference, you will prove that,

1>(sinΔθ/Δθ)>cos Δθ

But the cosmic theory THE IDION accepts a very small time Δt and Δθ=ωΔt, when the cosΔθ is about 1, so, with satisfied touching, (sinΔθ/Δθ)=1.

Same (cosΔθ-1)/Δθ= -(sinΔθ/Δθ)sinΔθ=0, because sin(ωΔt)=0.

We see that for the Δt of the universe, the trigonometric derivatives are equally satisfied with them that the infinitesimal calculus has accepted.

ARISING FUNCTIONS AND INTEGRALS

It defined the derivative Δy/Δx and now we define the arising function.

Definition: if y=kx^n, then Cy= x^{n-1} that is the formula of the before derivative, but it is moderated, now, it is the definition of the arising function Cy. The trigonometric equation have very much different arising from the before derivatives of the stated mathematics. That is, the arising, if y=sinx, Cy= 1sin(x$^{1-1}$)=sin1=sinπ=0.

The arisings are very different and usual, because they are defined with just reverse definition of the integrals.

Definition: if y=kx^n, then its integral is C^{-1}(x)= x^{n+1}. And again, the trigonometric integrals are not same with the integrals of the stated mathematics. I.e, y=sinx, C^{-1}(x)= sin(x^2).

The definitions of the arising and the integrals, are very interesting in the physics, the physics describing the creation. That is, for the stated physics in force of the attraction force in the reverse radius square, F=k/r^2 =mv^2/r. If the integral is of the 0 to r, you'll find negative potential energy, with the stated mathematics. If you make integral, as we are indicating, then it is positive and it is not divided with n+1.

CONCLUSIONS

The total implement of the logic, leads to the finish of the infinitesimal calculus, because the dx tenses but never arise to the zero. The formula of the derivative with limit dy/dx, is replaced with small differences Δy/Δx, and the new formula has the same practice results. But the implement of the new formula, gives results very different from the derivatives of the stated mathematics and already it is separated in means of the derivatives we are finding with the formula we are proposing, and the arising equation they find with the formula we have defined, very different from the before derivative. Reverses of the arising equations are the integrals. Now, the arising equation for the trigonometric functions, are already much different from their stated derivatives and the integrals are very much different from the stated integrals, they are in force till today.

The right implement of the logic and the derivative as we are moderating, gives centripetal, orbital and tangent velocity in the normal cyclic motion, as centripetal, orbital and tangent acceleration. The new theory finds justification of the atomic theory of the cosmic theory THE IDION, because the magnetic field producing every bubble, accelerates in tangent the motion of the other bubble, because it has centripetal force and it is having tangent acceleration. In the atom, there is the attraction of the electric carriers it is in reverse cubic power of radius and it is combining with the centripetal acceleration. The attraction force is coming from [7] the magnetic field of the charged rotated bubbles, they have magnetism m. The magnetic force is in reverse square power of radius and it isn't relative to the centripetal force, that have the electric carriers attraction and the magnetic fields create tangent acceleration.

[6] INFINITESIMAL CALCULUS, Finney-Weir-Giordano, p. 104
[7] THE THEORY OF CREATION, International Journal of Mathematics and Physical Sciences Research, Octomber2020-March2021

REFERENCES

[1] INFINITESIMAL CALCULUS, R. Finney-M Weir-F. Giordano, p.p 1-7, 10-22,25-5258-80,83-137, 143-211,305-320, PEK, Heraclium 2001

[2] SUPERRIOR MATHEMATICS, M. Spiegel, p.p. 20-40, 57-62, 80-100, ESPI Athens 1982,

[3] GENERAL MATHEMATICS, F. Ayres, p.p 1-16, 18-44, 59-80, 138-150, ESPI , Athens 1983

[4] DIFFERENTIAL AND INTEGRAL CALCULUS, M. Spivak,p.p. 33-116, 121-279, PEK, Heraclium 1999 MATHEMATICS, M. Mpaimpas, T. Piridis, I, p.p. 30-59, 102-115, 331-354, 362-396, 397-403, II, 1-49, 55-135,

[5] Athens 1976,

[6] INTRODUCTION TO THE DIFFERENTIAL EQUATIONS, R. Bronson, 1-14, 18-53, 63-70, ESPI, Athens 1978.

[7] THEORITICAL MECHANICS I. Chatzidimitriou, p.p 3-16, 18-69, 95-134, Thessalonica 1983.

[8] MECHANICS H. Kougioumtzopoulos p.p. 17-20, 22-27, 39-54, Anastasakis, Athens

[9] THEORITICAL MECHANICS, M. Spiegel, p.p.1-30, 115-130, ESPI, Athens 1989. `

[10] LOGIC, D. Anapoliticanos, D, Gavalas, A. Demis, K. Dimitrakopoulos, B. Karasmanis, Athens 2001