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THE TRISECTION OF AN ANGLE USING < A RULER AND A COMPASS > & THE QUANTUM , *SIX WAVE - MIXING* , MECHANISM USED BY THE DUALITY - PHOTONS

By

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Abstract

a.. The Present **Trisection Method** is based on an - **Directional Triangle -** $[E_{\varphi} O A_{\varphi}]$ on Diameter $[E_{\varphi} A_{\varphi} = 2.O A_{\varphi}]$ of Circle $\{\mathbf{O, O A_{\varphi}}\}$, which Vector $\overrightarrow{\mathbf{OA}_{\varphi}}$, **Rotates through center O** , **Forming** ANY-Angle $\{\mathbf{B\,\widehat{O}\,A_{\varphi=0-180^{\circ}}}\}$ On This **Triangle-Circle-Mechanism** are Drawn with <**A Ruler & a Compass**> **6-Conjugate Circles** of Radius $\overrightarrow{\mathbf{OA}_{\varphi}}$ on which is Defined at Point **H** , the Angle $\{\mathbf{B\,\widehat{H}\,A_{\varphi}}\}$ **such That Angle** $\Rightarrow \{\mathbf{B\,\widehat{O}\,A_{\varphi}}\} = \mathbf{3.}\{\mathbf{B\,\widehat{H}\,A_{\varphi}}\}$ The Point **H** , is **That which was Indicated by Archimedes** Trisection **Method** . On This **SIX-Wave Circles Mechanism** ,**The Photons Quantized Energy** $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1 = \mathbf{3.E_1}$,

And is → **The Mechanical SPDC - Trisection Method** ←

b.. The Unsolvability of the Three famous Ancient Greek Problems—Trisecting the Angle , Doubling the Cube , and Squaring the Circle -- **Stands on the Base justification** of the **Algebraic Field Theory** (**specifically Galois Theory**) and the **Theory of Constructible Numbers** , which were developed in the 19 th century .

c.. The Greeks often used other Techniques (**like Conic sections** or **Mechanical tools**) to Solve these Problems , But **their self-imposed** "Euclidean" constraint , with **a Ruler and a Compass** ,(straightedge and compass) made these Specific Problems impossible to solve.

d.. In the Published Articles [123],[124],[126] , it is **clearly evident** that the Solution of the Ancient , Unsolved Greek Problems, using **a Ruler and a Compass** , as the constraint has been set by Euclid] , **Has Become Possible**, and is in the Critique of Both , **Human Logic Thinking and , The Artificial Intelligence** when it uses **The Path of Knowledge** to the Truths of Nature , and which is the **Dialectic Logic** of Euclidean Geometry **.**

In article [123] , are given on the **2-Vectors , 3-Poles** Rotation Squares **Mechanism ,** where $\bar{\bar{\mathbf{E}}} = \bar{\bar{\mathbf{M}}}$ **,** such the Geometrical as the Mechanical Proof , by using the **Conjugate circles** of **Polhode** and **Herpolhode** which consist the Spin of Photons and which is their motion .The frequency needed for the velocity vector $\bar{\mathbf{c}}$ **to Rotate** , is used from Kepler`s **Unit meter of Time** $\mathbf{k = f^2{}_e\, a^3}$, where , a = λ / 2 ,and which is **the clock** measuring the changes of motions, **In article** [**124**] , It was Noted that **When** in Photons , $\bar{\bar{\mathbf{E}}} = \bar{\bar{\mathbf{M}}}$ **, these acquire the common Plane-meter** the Square CMNH = $[CM]^2 = \pi.[EC]^2$, where EC is the circle`s Radius **, Using the Bellow-Motion Method** by creating the Square CMNH = $[CM]^2$ from E , M , and from $[\mathbf{E}/\sqrt{2}]^{\mathbf{2}} = \pi.[M/\sqrt{2}\,]^2$, $\boldsymbol{\pi} \equiv \frac{[\mathbf{E}/\sqrt{2}]^{\mathbf{2}}}{[\mathbf{M}/\sqrt{2}]^{\mathbf{2}}}$ **and Thus Photon is Squared to an UNID SQUARE .**

In article [**126**] , It is important to Note that **When** in Photons , **E ≠ M , these acquire the common Space-meter** $\mathbf{\sqrt[3]{2}}$ **, Using Quantum-Cloning Method for** creating a Perfect-Copy of E , M , as are when E = 2.M and , $[\,\mathbf{E \neq M}\,]^{\mathbf{3}} = 2.[\,\bar{\bar{\mathbf{E}}} = \mathbf{2}.\bar{\bar{\mathbf{M}}}\,]^{\mathbf{3}}$ **. With this Way Photon is Dublicated to a New-One .** The simplified But a Rigorous Proof of the Problem , ***The Squaring of the Circle using a Ruler and a Compass*** , as it was first Posed by the Ancient Greeks , is followed by The Photons which Square their , Energy circle ≡ the **Herpolhode = SPIN** , to equal an **Energy Unit Square** , which **UNIT-Square** they Promote , **common Plane - meter** , either as the ***Speed of the Photon which is their Electric Field*** , or they store it Perpendicularly to the motion in an equal area , ***The Anti-Square which is their Magnetic Field .*** Promotion is done at the **Birefringence angle** of 45^o , and thus The **Bellow-motion** is their Torsional motion . At Phase Angle where $\bar{\bar{\mathrm{E}}} = 2.\bar{\bar{\mathrm{M}}}$,Energy Cube $[M / 2]^3$ is Dublicated and enters INTO . $[E]^3 = [2.M]^3 = 8.M^3$ ≡**Tetrahedron-Cube-Sphere-Mechanism.[**102**]**

From [40]--The Special Problems of Euclidean Geometry [47] consist the , ***Moulds of Quantization*** **, of E - Geometry in it , to become → Monad , through mould of Space – Anti-Space in itself ,** ***which is the material Dipole in inner monad Structure and which is identical with the Electromagnetic cycloidal field*** **→ Linearly through the mould of the Parallel Theorem [44- 45] ,** ***which are the equal distances between Points of Parallel and line →*** **In Plane , through mould of Squaring the circle [46] ,** ***where the Two Equal and Perpendicular Monad-Vectors ,*****E=M*****, consist a Plane acquiring The common Plane-meter, π ,*** **and in Space (volume) through mould of Duplication of the Cube [46] ,** ***where any Two Unequal Perpendicular monads ,*** **E≠M ,** ***acquire the common Space-meter ∛2, Using Quantum-Cloning Method to be Twice each other*** as analytically Proved-explained**.** The Unification ***of → Space and Energy ← Becomes through*** **[STPL]** ***Geometrical Mould Mechanism of Elements , the minimum Energy - Quanta ,*** **In monads →** ***Particles , Anti - Particles , Bosons , Gravity – Force , Gravity - Field , Photons , Dark Matter , and Dark - Energy , consisting the Material Dipoles in inner monad Structures ,*** **i.e.**

→ the innate Electromagnetic Cycloidal Field of monads ← [39-41]

Euclid's Elements consist of assuming a small set of intuitively appealing Axioms , Proving many other Propositions. Because No One until [9] succeeded to Prove the Parallel Postulate By means of **Pure Geometric Logic** , many self consistent Non -Euclidean Geometries have been discovered , Based on Definitions , Axioms or Postulates , in order that Non of them contradicts any of the other Postulates . It was Proved [39] , that the only Space - Energy Geometry is Euclidean , agreeing with the **Physical Reality** on Unit AB ≡ Segment ≡ Vector which is The Electromagnetic field of the Quantized on $\overline{\mathrm{AB}}$ Energy Space Vector of Angular Momentum= Spin, on the contrary to the General Relativity of Space-time which is based on the Rays of the Non-Euclidean Geometries to the limited velocity of light in Planck`s cavity . Euclidean Geometry elucidated the Definitions of its geometry - content , **i.e.**{ [for Point , Segment , Straight Line , Plane , Volume , Space [S] , Anti-space [AS] , Sub - space [SS] , Cave , The Space-Anti-Space Mechanism of the Six-Triple-Points-Line , that Produces and transfers Points of Spaces , Anti-Spaces and Sub-Spaces in a Common Inertial Sub-Space , and a cylinder , in Gravity field [MFMF] Particles} and describes the Space-Energy vacuum beyond Plank´s length level [Gravity`s Length 3,969.10¯62 m] , reaching the absolute Point

$L_v = e^{i.\left(\frac{N\pi}{2}\right)b=10^{-N}=-\infty}$ m = 0 m , which is Nothing , and the Absolute Primary Neutral Space [PNS] = cave [r = 10^{-35} ~~ 10^{-62} m [43-46] .

In Physics , there is No single Process called "Duplication of Energy" for Photons Because Energy must always be conserved , or when Two Photons are "merged" into a single Photon.

In Mechanics , The Gravity-cave *Energy Volume quantity* $|\bar{c}| \equiv$ [wr] is Doubled , and is Quantized in Planck`s - cave Space quantity (h/2π) = The Spin = 2.$[wr]^3$ → **i.e.** Energy Space quantity [wr] is Quantized , *doubled* , and becomes the Space quantity **h/π** following Euclidean Space-moulds of *Duplication of the cube*, in Sphere volume V = (4π/3).$[wr]^3$ and follows the *Squaring of the circle* **π** , and in Sub-Space-Sphere volume $\sqrt[3]{2}$ **,** as *Trisection* **.**

***Keywords* :** **The Quadrature of Electromagnetic Fields in Dual - Photon** ,
The Squaring of the circle , Using a Ruler and a Compass :
The Dublication of Photon , Using The Quantum-Cloning Method :
The Trisection of any Angle , Using a Ruler and a Compass

CONTENT :

(1) A.. The Trisection of Any Angle .

Because of the Three *master-meters* , where is holding the Ratio of Two or Three geometrical magnitudes , is such that they have a linear relation (*a continuous analogy*) in all Spaces , the solution of this Problem , as well as of those before , is linearly transformed . The Present method is a Plane method *, i.e. straight lines and circles ,* as the others and is not required the use of conics or some other equivalent . Archimedes and Pappus proposals are both instinctively right . [40] .

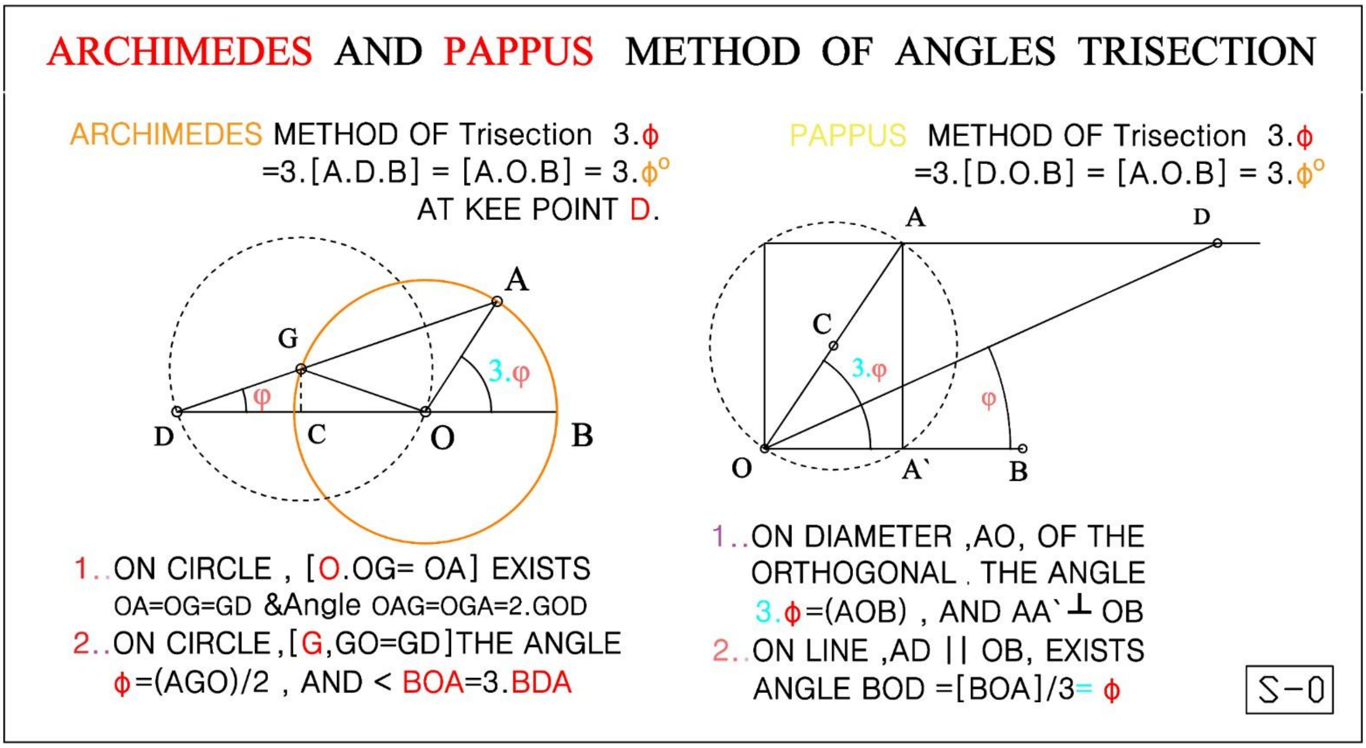


Figure-1- (1) The Archimedes Method of Trisecting the angles , (2) The Pappus Method

(1).. Archimedes , Uses the Two Isosceles triangles , OAG , GOD , to Produce the angle $A\widehat{O}B$. In triangle GDO the angle $G\widehat{D}O = G\widehat{O}D = A\widehat{D}B$. In triangle AOG the angle $O\widehat{G}A = O\widehat{A}G = 2.A\widehat{D}B$, because angle $O\widehat{G}A$ is the external angle of triangle GDO . In triangle ADO the angle $\mathbf{A\widehat{O}B} = A\widehat{D}O + O\widehat{A}D = A\widehat{D}O+2.A\widehat{D}O = \mathbf{3.A\widehat{D}O}$,…..(**a**)
In (a) is shown the way to make **Geometrically ,** ***with a Ruler and a Compass*** **, the angle ,** $A\widehat{D}O$, **three times greater** itself , and **Not the Trisection** of the angle $\mathbf{A\widehat{O}B}$.
The Point D is the Kee of the Solution which was Not then set .

(2).. Pappus , Uses the Rectangular of Diameter AO , The Circumscribed circle [C,CO= CA= CA`] and from Rectangular-triangle OAA` angle $O\widehat{A}A$`$= 30^o$ , and angle $A\widehat{O}A$`$= 60^o$ showing thus the importance of the right-angle triangle from the angle ratios 1 to 2 .

The Present method :
It is based on an <**Directional-Triangle 30 & 60 degrees**> which Rotates through the centre **O ,** of the Initial circle [O,OA] and by Drawing the **6-Conjugate Circles Defines The KEE Point D ≡ H** , which Forms line -Vector $\mathbf{HA_{\varphi}}$ and **carries** $\mathbf{A_{\varphi}}$ **Vertex** at **Directional-Triangle 60º** Vertex **.** For angle **90º Point H is in Position** $\mathbf{E_{90}}$, and angle $\mathbf{< OAE_{90} = 30^o}$ **For angle 180º** Point **H is in Position ,** $\mathbf{E_{180}}$, while **For angle 0º or 360 º , KEE Point H is in Position ,** $\mathbf{OAE_{0-360}}$ **.**

This Way of Rotation Transports the Sweeping Radius $\overrightarrow{OA_\varphi}$, in Angle $A_\varphi \widehat{O} B$,

From the **Initial Circle [O , O A_φ = OB = OA] , To the other 6-Circles as** below,

a).. The **Initial Circle [O , O A_φ = OB = OA] ,** on Angle at the Centre **O** ,

b).. On the **Conjugate Circle [A , AO = AA\`= AG = OB**] , at the Centre **A** ,

c).. On the **Directional Circle [O , O $E_{90} = OA.\sqrt{3}$**] , at the Centre **O** ,

d).. On the **Conjugate Circle [E_2 , $E_2E_1 = E_1O = OA$] ,** at the Symmetric Point E_2 .

e).. On the **Conjugate Circle [F_2 , $F_2F_1 = F_1O = OA$] ,** at the Symmetric Point F_2 .

f).. On the **Conjugate Circle [P , P F_2 = P E_2 = OA] ,** at the Common Point **P** .

(2) THE GEOMETRICAL - METHOD FOR TRISECTING ANY ANGLE , $A_\varphi.\widehat{O}.B$,

THE - STEPS : Fig-2-

1.. DRAW with ***a Ruler and a Compass*** , [**a**]= With Center O and Radius **, O**A_φ, the circle (O , O A_φ= OB = OA) intersecting OB line at Point **B** , OA line at Point **A** , and where **OA ⊥ OB** , [**b**] = The circle **, [O, OA\` = 2.OB ] ,** and the Circle (A,AO = AA\`) which Define the Common Point **G** , and Circle [G , GO] intersecting line BO Produced at Point **E** ≡ E_{90} , [**c**] = The Circle [O,OE = O E_{90° = O E_{0-360° = $\sqrt{3}$.OA] ,

2.. DRAW with ***a Ruler and a Compass*** , [**a**] = The Circle [O,OA\`] cutting BO extendent at Points **F** , C_1 , respectively. [**b**] = Extend the Straight line AG at Point E ≡ E_{90} .

3.. DRAW with ***a Ruler and a Compass*** , [**a**] = The Line Vector **A_φ,F** .which intersects the Conjugate circle (O , O A_φ) at Point F_1 , and the Circle (F_1, F_1O = F_1F_2) at Point F_2 , on Line Vector **A_φ,F** ,.. [**b**] = The Line Vector **A_φ,E** ≡ E_{90} .intersecting the Conjugate circle (O ,O A_φ) at Point E_1 , and Circle (E_1, E_1O =E_1E_2) at Point E_2 **,** on Line **A_φ,E**

4.. DRAW with ***a Ruler and a Compass*** , [**a**] = The Conjugate circle [F_2 , F_2 F_1= F_1O] at centre F_2 , [**b**] = The Conjugate circle [E_2 , E_2 E_1= E_1O] at centre E_2 ,.. [**c**] = The two above Conjugate Circles with Centres F_2 , E_2 , Cut each other at Common Point **P** , such that Circle **{ P , $PF_2 = PE_2 = F_1O = E_1O = OA_\varphi$ }**

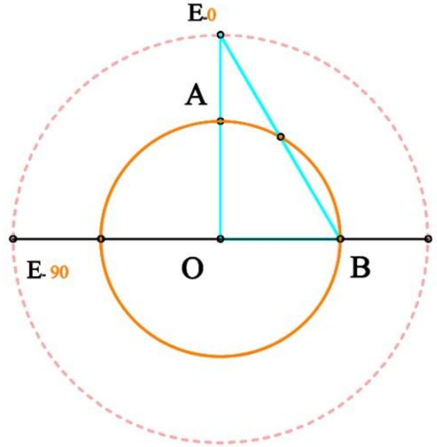
5.. DRAW with ***a Ruler and a Compass*** , [**a**] = From the Common **P** , the Conjugate circle **{ P , $PE_2 = PF_2$ } ,** which Intersects **OF** line Vector at Point **H** . [**b**] = The Straight line **H A_φ ,** intersects the Circle (O , O A_φ) at Point H_1 , forming the Angle **B $\widehat{H}$ A_φ , such that → Angle { B $\widehat{O}$ A_φ } ≡ 3. { B $\widehat{H}$ A_φ }**

6.. With ***a Ruler and a Compass*** , have been Constructed **the Circles** a).,b).,c).,d).,e).,f)., The **Directional -Triangle** , E_φ A_φ O , and from Common Point **P** , Their **Common Conjugate** circle **{ P , $PE_2 = PF_2$ } ,**

To PROVE that with ***a Ruler and a Compass*** , is found **The Kee Point H** , such That issues **The Trisection of Angles** .

THE MARKOS METHOD , FOR THE TRISECTION OF ANGLES

ANGLE ϕ=BOB=0°=180°

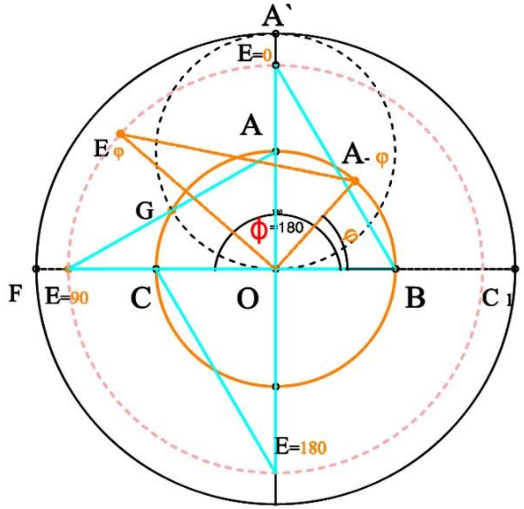


BE.o = 2.OB = 2.OA = OE.90

AO ⊥ OE ⊥ OE.90 OE.o = OA.$\sqrt{3}$

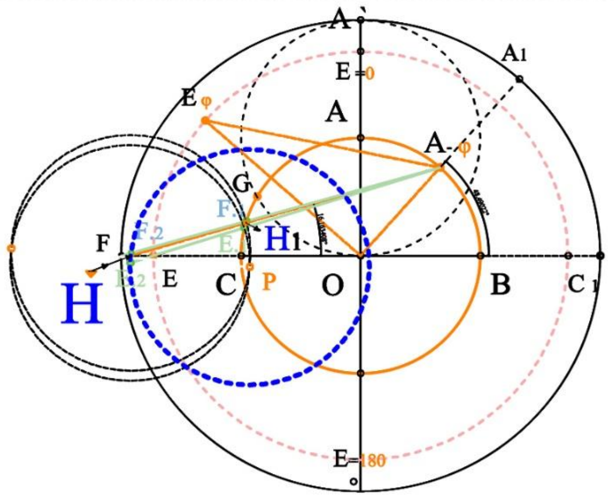
FROM POINT , O , AS CENTER DRAW THE CIRCLE [O,OA=OB] & THE CIRCLE [O,OEo=OE.90] SINCE TRIANGLE , [OBE.o =90°] THEN ROTADES THROUGH , O .

CONSTANT TRIANGLE [A=ϕ.O.Eϕ.] AT ANGLE ϕ.



AT ANY POINT , A-φ , OF THE CIRCLE [O,OA] , ANGLE (A-φ.O.B) FORMS THE CONSTANT TRIANGLE {OAφEφ} WHICH ROTATES THROUGH POLE , O . AND THE RIGHT-ANGLE TRIANGLE DEFINES THE DIFFERENT ANGLES „ BO.A-φ „ AS THE RELATIVE TO CONSTANT {OAφEφ}

ANGLE ϕ =Aϕ.O.B=ϕ°



AT POINT , A-φ , OF CIRCLE [O,OA] , ANGLE (A-φ.O.B = 48,49022°). LINE , A-φ.F ,CUTS [O,OA] CIRCLE AT POINT - F1- AND CIRCLE ,[F1,F1O=OA] AT POINT-F2- . LINE , A-φ.E ,CUTS [O,OA] CIRCLE AT POINT - E1- AND CIRCLE , [E1,E1O=OA] AT THE POINT-E2- , PRODUCED ... CIRCLE { F2,F2.F1=OA } CUTS THE EQUAL CIRCLE { E2,E2.E1=OA } AT THE POINT , P , SUCH THAT CIRCLE {P, P.F2.P.E2=OA} CUTS , OF , AT POINT , H , .THE LINE , A-φ.H , FORMS ANGLE (A-φ.O.B = 3.[A-φ.H.B]

S–0

Figure-2- In (**1**) , The **Directional -Triangle** , E_{φ} O B , on where [$\mathbf{E_0B = 2 .O B}$] , $\mathbf{E_0O} \perp$ OB , and on Circle **, [O , $\mathbf{OE_0 = OE_{90}}$] .**

In (**2**) , The **Directional -Triangle** at Positions $\mathbf{E_{\varphi = 0^o}}$ **,** $\mathbf{E_{\varphi = 90^o}}$ **,** $\mathbf{E_{\varphi = 180^o}}$ **,** and for any angle $A_{\varphi}.\overset{\frown}{O}.B$, exists the Triangle {E_{φ} A_{φ} O} .

In (**3**) , The **Angle {B $\overset{\frown}{O}$ A_{φ}}** ***is Trisected*** by Drawing **the Circles** a).,b).,c).,d).,e).,f). which define the Angle **B $\overset{\frown}{H}$ A_{φ} , such that → Angle { B $\overset{\frown}{O}$ A_{φ} } ≡ 3. { B $\overset{\frown}{H}$ A_{φ} }**

(3) THE GEOMETRICAL - PROOF :

a).. Because Triangle , **H_1 O A_{φ}** , is Isosceles (the radius O H_1= O A_{φ}) , **Therefore** the line-Segment OA_{φ}= OH_1 , and angle { **O $\widehat{H_1}$ A_{φ} = O $\widehat{A_{\varphi}}$ H_1** },

b).. Because Triangle , **H_1 O H** , is Isosceles (the radius H_1O = H_1H) , **Therefore** the line-Segment H_1O = H_1H , and angle { **O $\overset{\frown}{H}$ H_1 = H $\overset{\frown}{O}$ H_1** }

c).. Because the External Angle **{ B $\overset{\frown}{O}$ A_{φ} }** , of triangle , **O A_{φ} H ,** is equal to the Two Interiors **Therefore** Angle { **B $\overset{\frown}{O}$ A_{φ}** } = { **O $\widehat{A_{\varphi}}$** H } + { **O $\overset{\frown}{H}$ A_{φ}**} ……(c)

d).. Because the External Angle **{ O $\widehat{H_1}$ A_{φ} }** , of triangle , **O H_1 H ,** is equal to two Interiors **Therefore** Angle **{ O $\widehat{H_1}$ A_{φ} }** = { **O $\overset{\frown}{H}$ H_1**}+{ **H $\overset{\frown}{O}$ H_1**} **,** and since **Triangle** , **O H_1H ,** Is Isosceles , issues line Vector **H_1 H = H_1 O** , and so Angle { **O $\overset{\frown}{H}$ H_1**}={ **H $\overset{\frown}{O}$ H_1**} **. Thus** on the equal angles **issues** Angle **{O $\widehat{H_1}$ A_{φ}}** = {**O $\overset{\frown}{H}$ H_1**}+{**O $\overset{\frown}{H}$ H_1**}=**2**.[**O $\overset{\frown}{H}$ H_1**]...(d)

e).. By Introducing (**d**) in (**c**) , then the Angle { **B $\overset{\frown}{O}$ A_{φ}** } = { **O $\widehat{A_{\varphi}}$** H = **O $\widehat{H_1}$ A_{φ}** } + { **O $\overset{\frown}{H}$ A_{φ}**}= [**2**.(**O $\overset{\frown}{H}$ H_1**) = 2.(**O $\overset{\frown}{H}$ A_{φ}**)] + (**O $\overset{\frown}{H}$ A_{φ}**) = **3.[O $\overset{\frown}{H}$ A_{φ}]** ……..**o.ε.δ.**

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f).. **Analysis :**

1..The **Sweeping Radius $\overrightarrow{\mathbf{OA_{\varphi}}}$ in Angle A_{φ} $\overset{\frown}{O}$ B ≡ B $\overset{\frown}{O}$ A_{φ}** , Rotates from $\overrightarrow{OB}$,$\overrightarrow{OC_1}$ ≡ the Radius , to $\overrightarrow{OA_1}$ ≡ Radius with angle $C_1 \overset{\frown}{O} A_1 = 60^o$ „ $\overrightarrow{OA`}$ ≡ Radius with angle $C_1 \overset{\frown}{O}$ A`= 90^o , to $\overrightarrow{OA_{120}}$ ≡ Radius with angle $C_1 \overset{\frown}{O} A_{120} = 120^o$ „„ $\overrightarrow{OAF}$ ≡ Radius with angle $C_1 \overset{\frown}{O}$ H = 180^o

2..In every **Radius and corresponding Angle** , are Drowned **the 6 , Equal and Conjugate Circles** a).,b).,c).,d).,e).,f)., which **Trisect The Rotating Angle { B $\overset{\frown}{O}$ A_{φ} }**. All circles , lines and line-Vectors are DRAWN with ***a Ruler and a Compass*** ,

3..Regarding the Universal Validity of the Method , The Step by Step method , followed the Restrictions set by Euclid and is Applied at angles of 60^o and 90^o also , which give 20^o , 30^o , and which are the Exact results of the Trisection .

(4) THE TRISECTING OF ANGLE 60^o . Fig-3-

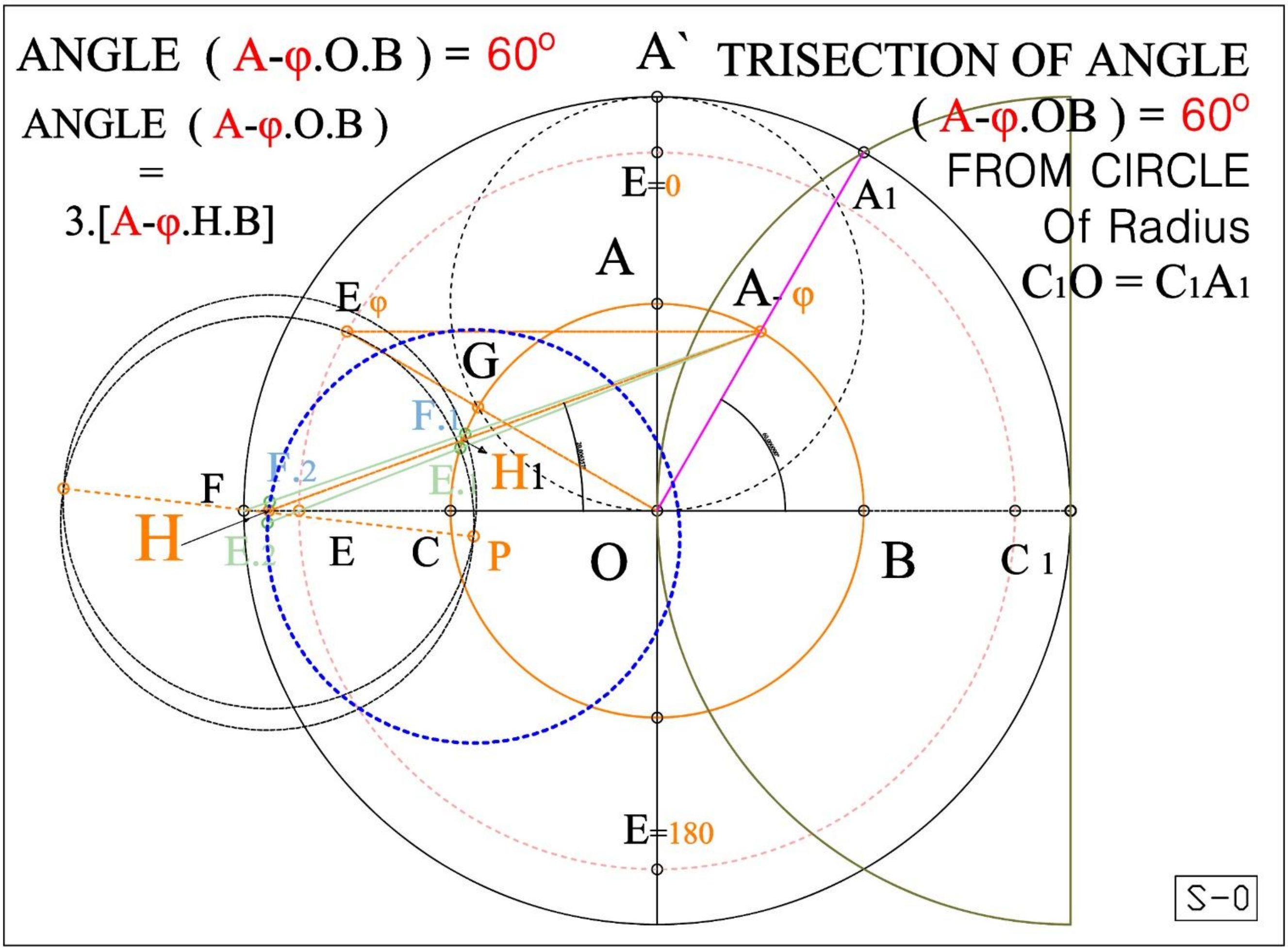


Figure-3-

The angle $\widehat{\boldsymbol{\varphi}} \equiv \mathbf{60^o}$ is $\rightarrow$ $\mathbf{A_{\varphi}.\widehat{O}.B} = \mathbf{A_1.\widehat{O}.B} = \mathbf{C_1\widehat{O}.A_1} = \mathbf{60^{\,o}}$, and is Defined from the triangle $\mathbf{A_1OC_1}$ **,** as the intersection of Circles , **O , O** $\mathbf{C_1}$ and ($C_1O\,A_1$) **.**

By using a Ruler and a Compass then ,

From Initial Circle [O , O $\mathbf{A_{\varphi}}$**= OB = OA] and on line -Segment** , $\overrightarrow{\mathbf{A_{\varphi}H}}$, $\overrightarrow{\mathbf{A_{\varphi}E}}$, are **are defined Points** $\mathbf{F_1}$ **,** $\mathbf{F_2}$ **,** and $\mathbf{E_1}$ **,** $\mathbf{E_2}$ **, from where are Drown the equal Circles** ,

a).. The **Initial Circle [O , O** $\mathbf{A_{\varphi}}$ **= OB = O**$\mathbf{A_1}$**] ,** on Angle at the Centre **O** ,

b).. The **Conjugate Circle [A , AO = AA` = OB = AG**] , at the Centre **A** ,

c).. The **Directional Circle [O , O** $\mathbf{E_{90}}$ **= O** $\mathbf{E_0} = \mathbf{OA.\sqrt{3}}$] , at the Centre **O** ,

d).. The **Conjugate Circle [** $\mathbf{E_2}$ **,** $\mathbf{E_2E_1 = E_1O = OA}$ **] ,** at the Symmetric Point $\mathbf{E_2}$.

e).. The **Conjugate Circle [** $\mathbf{F_2}$ **,** $\mathbf{F_2F_1 = F_1O = OA}$ **] ,** at the Symmetric Point $\mathbf{F_2}$.

f).. The **Conjugate Circle [P , P** $\mathbf{F_2 = P\,E_2 = OA}$ **] ,** at the Common Point **P** .

The **Directional -Triangle** , $E_{\varphi}\ O\ A_{\varphi}$, on where $\overrightarrow{E_{\varphi}\ A_{\varphi}} = 2.\ OA_{\varphi}$, ,,

The **Conjugate Circle [P, P E = P** $\mathbf{F_2}$ **= PH] , Defines Point H** , on line Vector **OF**.

which Forms the Angle $\mathbf{B\,\widehat{H}\,A_{\varphi}}$ **and such that** $\rightarrow$ **Angle {** $\mathbf{B\,\widehat{O}\,A_{\varphi}}$ **}** $\equiv$ **3. {** $\mathbf{B\,\widehat{H}\,A_{\varphi}}$ **}**

THE - PROOF is the same as in the General case for any Angle , $\widehat{\boldsymbol{\varphi}} \equiv \mathbf{A_{\varphi}.\widehat{O}.B}$.

(5) THE TRISECTING OF ANGLE 90ᵒ . Fig-4-

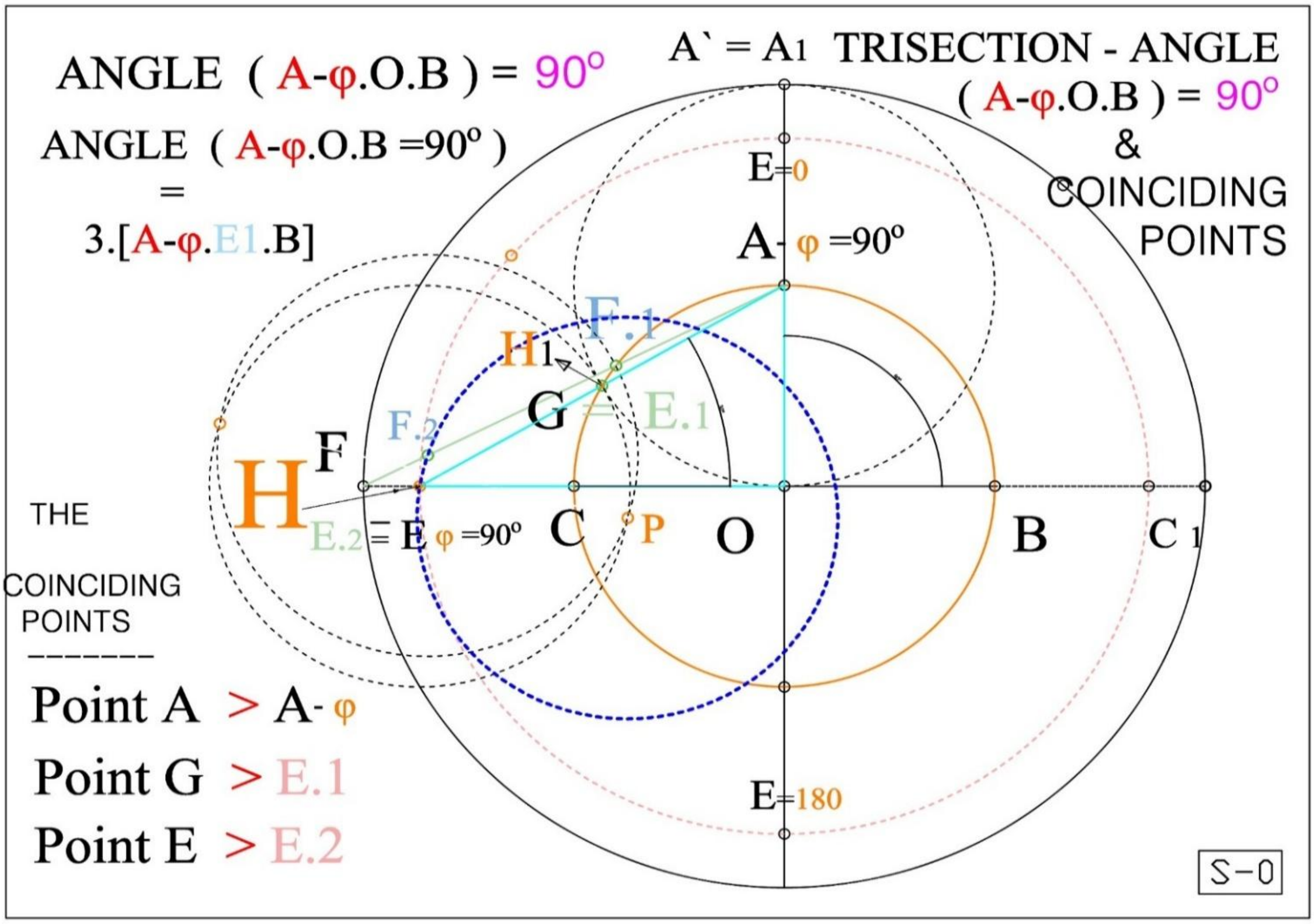


Figure-4-

The angle $\tilde{\varphi} \equiv 90^o$, which is $\rightarrow$ $A_{\varphi}.\tilde{O}.B = A`.\tilde{O}.B = C_1\tilde{O}.A` = 90^o$ $\leftarrow$,

Since Point A_1 coincides with A\` , **and is Defined By using a Ruler and a Compass** ,

From Initial Circle [O , O A_{φ}= OB = OA] , and on line -Segments , $\overrightarrow{A_{\varphi=90}H}$, $\overrightarrow{A_{\varphi=90}E}$

are defined Points F_1 , F_2 , and E_1 , E_2 **, from where are Drown the equal Circles ,**

a).. The **Initial Circle [O , O A_{φ} = OB = O A\`=** on Angle 90^o at the Centre **O** ,

b).. The **Conjugate Circle [A , AO = AA\`= OB = AG]** , at the Centre **A** ,

c).. The **Directional Circle [O , O E_{90} = O E_0 = OA.$\sqrt{3}$]** , at the Centre **O** ,

d).. The **Conjugate Circle [E_2≡ E , E G = GO = OA] ,** at Symmetric Point **E_2= $E_{\varphi=90}$** .

e).. The **Conjugate Circle [F_2 , F_2F_1 = F_1O = OA] ,** at the Symmetric Point **F_2** .

f).. The **Conjugate Circle [P , P F_2= P $E_{\varphi=90}$ = OA] ,** at the Common Point **P** .

By Placing *The Coinciding Points* , $A_{\varphi} \Rightarrow A$, /, $E_1 \Rightarrow G$, /, $E_2 \Rightarrow E$ **, Then The Directional - Triangle ,** E_{φ} O A_{φ} **,** Coincides with **Triangle ,** $A_{\varphi=90}$ O $E_{\varphi=90}$.

The **Conjugate Circle [P, P E_2= P E = E G] , Defines Point H ⇒ E** , on line Vector **OE** . which Forms the Angle [**B** $\widehat{E_{\varphi=90}}$ **A** $_{\varphi=90}$ **] = 30ᵒ where then issues**

$\rightarrow$ **Angle { B $\tilde{O}$ $A_{\varphi=90^o}$ } ≡ 3. { B $\tilde{H}$ A_{φ} } ≡ 3. [B $\widehat{E_{\varphi=90}}$ $A_{\varphi=90}$]**

THE - PROOF is the same as in the General case for Any Angle , $\tilde{\varphi} \equiv A_{\varphi}.\tilde{O}.B$.

→The Euclidean Number Quantized Field & Galois Algebraic Number field ←

The Theorem of *Hermit-Lindeman* that number , pi , is not Algebraic , is Based on the theory of Constructible numbers and number fields (*on number Analysis*) **and Not** on the < ***Euclidean Geometrical Origin-Logic on Unit elements Basis* > , i.e. ,**

Plane in Euclidean Geometry is consisted of infinite lines and infinite Points without any Unit-Monads Dimension on which **are Quantized ,** (**a**)..By connecting Any Two-Points by a Straight-line, (**b**)..By finding the Point of Intersection of Any Two-lines , (**c**)..By Drawing Any Circle with a given Radius about Any Point , (**d**)..By finding the Points of Intersection of a Circle with another Circle and or with a line . The above **Geometrical Quantization of Points** is The **Euclidean Numerical Quantized Field** .

In Galois Algebraic Number field , in an Plane x , y , the only one Segment is given at the outset and may This taken as the **Unit length** which fixes the Point x = 1 , y = 0 . This issues for any Arbitrary Set of Points x , y with Rational coefficients a , b , c **, ..**

The Incorrect Placement on The Field-Object

By giving Apriori , One Segment as the **Unit length** , then the ***Algebraic Number field is Quantized* ,** to The **Unit length Rational coefficients** only . { ***This is Exactly the same which Happens in* , World Planes *, with - Line Spacing – which Range is Controlled*** }

In E-Geometry the mathematical Reasoning (*the Method*) is Based on the Restrictions imposed to seek the Solution < **i.e. *with a Ruler and a Compass* And *Not Differently*** > .

By extending Euclid logic of Units on the Unit circle *to The Unknown and Now Proved Geometrical Unit elements* , thus the settled age-Old question for The Unsolved Problems is Now Approached and is Solved the continuously stood Problem . The Mathematical interpretation and the Philosophical Relative reflections Based on the existing Theory of the Non -Solvability of the Ancient Greek Unsolved Problems must Properly Revised ..

(6) The Geometrical & Physical Notion of the Trisection :

In Euclidean - Geometry **: The Sum of Angles on Any Triangle is 180▫ . [45 - 49]**

1…*In Geometry* , Since the two Dimensional Spaces exists on Space and Subspace (45) then this Problem of angles must be on the Boundaries of the two Spaces **i.e.** on the Circumference of the circle and on any tangent of the circle and also to that Point where Concentrated Logic of geometry exists for all units, as are Straight lines etc. It was proved at first that, the triangle with Hypotenuse the Diameter of the circle is a **Right angled-Triangle** and then the triangle of the Plane of the three vertices and that of the closed area of the circle (the Subspace), and measured on the Circumference is 180 ▫.

2…*Definitions , Axioms or Postulates create a Geometry, But in order this Geometry to be right must follow the logic of Nature , which is the meter of all logics , and was found to be in the first dimensional* **Unit $\overrightarrow{\mathbf{OA}} \equiv \overleftarrow{\mathbf{AO}} = 0 \rightarrow \infty$** ***i.e. the Quantization of Points as monads is the reflected Model of the Universe agreeing with E-Geometry***

3…*The Logic of Trisection.*

This Problem follows the two Dimensional logic, *where ,* ***the geometrical magnitudes and their unique circle*** *, have a Linear Relation* (Continuous Analogy) *in all Spaces as , in one in two in three dimensions , and as this happens to Compatible Coordinate Systems , happens also in Circle-arcs.* The Compact-Logic-Space-Layer exists in Units , (***Case of 90 ▫ angle***) where then we may find a **New Machine** that Produces the 1/3 of angles as in F.2-4. Since angles can be Produced from any Unit-monad OA ,*and this because monad can formulate a circle of radius* OA *, and from any Point* B *on circle can then formulate angle* < AOB , therefore the logic of continuous analogy issues also and on OA radius equal OB.

4… *In Mechanics* : The Gravity-cave Energy-quantity [wr] is Quantized in Planck`s -cave Space-quantity as Sphere volume **V= (4π / 3).[wr]³** → and in Sub -Space-Sphere the Sub-space volume ***³√2 ,*** through the *Trisection of the angle .* [11-44].

5… *The Application in Physics* : [51-115]

According to math theory of Elasticity , the Total work on Free edges where there is No Shear becomes from Principal Stresses only and work is as , $\mathbf{W} = \frac{\sigma^2}{2E} + \frac{\tau^2}{2G}$, and the analogous Energy in monads $W = \frac{1}{2}.[\varepsilon E^2+\mu H^2]$ Spread as the ***First Harmonic*** and equal to the outer Energy = The Spin , $\bar{\mathbf{S}}$ **= E / w = 2πr.c ,** from Equation Energy $E = \bar{S}$ w . [51] . From Planck`s equation of Energy , **E = h.f = (h/λ).c** , is equal to the ***Isochromatic Pattern fringe-order*** in monad as the **Normal-Stresses → σ1 - σ2 = (a/d).N = (a/d).n.f_1= (8π.r²/3).n. $\mathbf{f_1}$** ← (a) where

n = The order of isochromatic , **i.e.** *a number* ,

$\mathbf{f_1}$ = The frequency of the Fundamental-Harmonic .

Since the Total Energy in cave **(wr)²** ***, is dependent on Frequency only , and is stored in the Fundamental and the first Six Harmonics , SO the Summations Bands of these Six Isochromatic Quantized interference Fringe-Order-Patterns , is the Total Energy*** $\mathbf{E_{TOTAL}}$, in the same cave **(wr)²** as , **E = Spin . w = $\bar{\mathbf{S}}$.w = (h / 2π).2π.f = h.f**

$$\mathbf{2.\ [\frac{4\pi r^2.f1}{3}]\ .\ [\frac{n(n+1)}{2}] = [\frac{4\pi r^2.f1}{3}]\ n.(n+1)} \quad .....(b)$$

When Stress (σ1-σ2) go up (Increases) then , **n** = ***order fringe defining Energy*** goes up also , and the **Colors Cycle** through a more or less repeating Pattern and the Intensity of the colors diminishes . Since **Phase** , **φ** = k**x** - w**t** = ***Spatial* and *Time Oscillation dependence*** , **then ,**

For n = 1 , The *Energy in the First Harmonic* is , **E = 2πr.c =** $[\frac{4\pi r^2}{3}].f_1.[1]$, and

For n = 2 , The *Energy in the First and Second Isochromatic Harmonic* is their Sum

$$E = [\frac{4\pi r^2}{3}].f_1.[1] + E = [\frac{4\pi r^2}{3}].f_1.[2] = [\frac{4\pi r^2}{3}].f_1.[3] \text{ ....(c)}$$

For n = 3 , The Energy $E = [\frac{4\pi r^2}{3}].f_1.$ [3] , which means that the Energy **in Threes *, and in analogous way Angle φ ,* is Trisected** with Energy-Bunched variation f_2 **, i.e.** from (c) ,

The Energy stored in a Homogeneous ***Resonance*** , is Spread in the First of Seven-Harmonics Beginning from the Fundamental and after the filling with frequency f_1 , follows the Second - Harmonic . In Second-Harmonic Energy as frequency is doubled , and this because of sufficient keeping Homogeneously in Spatial Dependence-Quantity , **kx = (2π/λ).x** which is in threes , meaning that → ***Dipole – Energy*** is Spatially-Trisected in **Space – Quantity- Quanta** , and the **Spin = h/2π** , as the **Angle φ** , of Position anf Time **Phase φ = kx-wt = (2π/λ).x ,** is Trisected by the Energy Quantity Quanta as this in an RLC circuit. [49]

6… *The Application in Planck`s length* :

The Electromagnetic Waves are able to transmit Energy through a Vacuum (Empty Space) by storing their Energy vector in an Standing Transverse Electromagnetic Dipole wave , and so considered completely Particle like, and in the transverse interference Pattern tobe considered as completely Wave , so **the Same Quantity of Energy as Intensity** is ,

Energy $I_d = \frac{\rho.\pi^2 c^3}{2\lambda^2}[\varepsilon E^2+\mu H^2]$ ***in volume*** $V = [\frac{4\pi.(w^1 r^1)^3}{3}]$ having mass → ***Particle Energy***

and $I_d = (\frac{\rho.c}{2}).(w.A_o)^2$ ***in Interference Pattern*** as → ***Wave***

This is the Wave-Particle Duality unifying the Classical Electromagnetic field and the Quantum Particle of light .Angular momentum of Particles is → Spin = $\frac{E}{w}$ = $[\pm J.\overline{w}^2]$ = $\overline{B} = \overline{S} = \pi.r^3.\sigma\ \Phi / 2 = [\frac{\pi.\sigma.\Phi}{2}]\ r^3$, where → $r^3 = 2.\overline{S} / \pi.\sigma.\Phi$ ← and Spin = $\frac{h}{\pi}$ **= 2.[wr]³ ,**

or *Energy Space quantity ,* wr , ***is Doubled and Becomes The Space Quantity*** $\frac{h}{\pi}$ **,**

The above relation of Spin shows the deep relation between Mechanics and E-geometry , *where in the tiny* ***Gravity-cave*** of $r = 10^{-62}$ m , *the Energy -Volume-quantity* [wr] in cave ,

is Doubled and is Quantized in Planck`s - cave Space quantity as , $(\frac{h}{\pi})$ = Spin = 2.[wr] ³

in $r = 10^{-35}$ m [107] **i .e.**

Energy Space quantity , **wr** , is Quantized and Becomes the New Space quantity , **h/π = 2.[wr] ³,** *Doubled* , following the Euclidean Space-mould of *Duplication of the cube by changing frequency*, in tiny Sphere volume V = (4π / 3).[wr/2]³ **.** For E = Jw² = r.r³/2 ,

And Since w = E / [h/2π] = (m.c²) / [h/2π] = 2π.mc²/ h = 2r.s² = 2.r³.w² , where then

mass m = $\frac{(wr)^3}{c^2} = \frac{2}{c^2}(wr)^3$ **, Is Doubled as above with Space -Mould** and **, *is what is called Conversion factor mass*** , m ≡ mass , **and it is an Index of the Energy changes .**

So , Energy magnitudes from , 0 to → ∞ , Deposit in the same Space as *Resonance* ,

by changing their frequency.

(7) In Quantum-Optical Process a single ,High-Energy Photon **[n_3]** = **The Pump Photon**) Spontaneously Splits into two Lower-Energy Photons **[n_1]** = **The Signal** and **[n_2]** = **The Idler).** Fig-5-

The Energy of the incoming Pump Photon [n_3] equals the combined Energies of the Two outgoing Photons [n_1] + [n_2] .or Energy **h.w_3= h.w_2+ h.w_1** .

The Momentum $\mathbf{B}_3$ **,** of the Pump Photon is equal the Sum of the momenta of the signal and idler Photons as $\mathbf{B}_3 = \mathbf{B}_2 + \mathbf{B}_1$

The two daughter Photons Produced in the Outer-Spin are Perfectly correlated. to the **Polarization** , **time of flight** , or the Energy of ***Fundamental-Harmonic*** Photon , and thus known the **State of the other ,** [n_1] . [n_2] —*Even if they are separated by Kilometers* ---

Because the two Photons are Born together, Detecting one acts as a "herald" or confirmation that the other Photon is currently zooming down the Optical setup

From Phase Position and Time equation , φ = k**x** - w**t ,**

The Wave-Particle Duality unifies the Classical Electromagnetic field and the Quantum Particle of light . The Angular momentum of Particles is as ,

Spin = $\frac{\mathbf{E}}{\mathbf{w}}$ = [± J.$\overline{w}^2$] **=** $\overline{\mathbf{B}}$ = $\overline{\mathbf{S}}$ = π.r³.[σ Φ] / 2 = [$\frac{\boldsymbol{\pi.\sigma.\Phi}}{\mathbf{2}}$] . r ³ , where is **f =** $\frac{\boldsymbol{\sigma.\Phi}}{\mathbf{2\pi r.}}$,

and becomes **r ³ =** $\frac{\mathbf{2.\bar{S}}}{\boldsymbol{\pi.\sigma.\Phi}}$, and Spin = | $\frac{\mathbf{h}}{\boldsymbol{\pi}}$ **| = 2.[wr]³ ,**

The Energy from Chaos , r = 10^{-62} m , i***s Conserved in Planck`s - cave and Doubled (*** *it is Quantized* ***) in Planck`s - cave Space ,*** r = 10^{-35} m , as ***quantity*** E = ($\frac{h}{\pi}$) = Spin = 2 . [wr] ³ **.** E_1

***The Total Energy in cave* (wr)² , is $\mathbf{E_T}$ =** Volume x Frequency , ***and is dependent on Frequency only , and is Stored in the Fundamental of the first Six Harmonics , and* For n = 2 ,**

The *Energy in the First and Second Isochromatic Harmonic* is their Sum

$$\mathbf{E} = [\tfrac{4\pi r^2}{3}].\ \mathbf{f_1}.[\,n_1] + \mathbf{E} = [\tfrac{4\pi r^2}{3}].\ \mathbf{f_1}.[\,n_2] = [\tfrac{4\pi r^2}{3}].\ \mathbf{f_1}.\ [n_3]\ ,\ \text{where}$$

$$E_1 = [\tfrac{4\pi r^2}{3}].\ f_1.[\,n_1] = [\tfrac{4\pi r^2}{3}].\ f_1\ ,\ E_2 = [\tfrac{4\pi r^2}{3}].\ f_1.[\,n_2] = 2.[\tfrac{4\pi r^2}{3}].\ f_1$$

The two Daughter Photons Produced in the Outer-Spin from $E_2 = 2.[\frac{4\pi r^2}{3}].\ f_1$,

are $E_{2-1} = [\frac{4\pi r^2}{3}].\ f_1$, $E_{2-2} = [\frac{4\pi r^2}{3}].\ f_1$, and $E_{2-1} = E_{2-2} = [\frac{4\pi r^2}{3}].\ f_1$.

If we State The , **The Signal Photons** [n_1] , where [n_1] = The first Harmonic ,

If we State The , **The Idler Photons** [n_2] , where [n_2] = The Second Harmonic ,

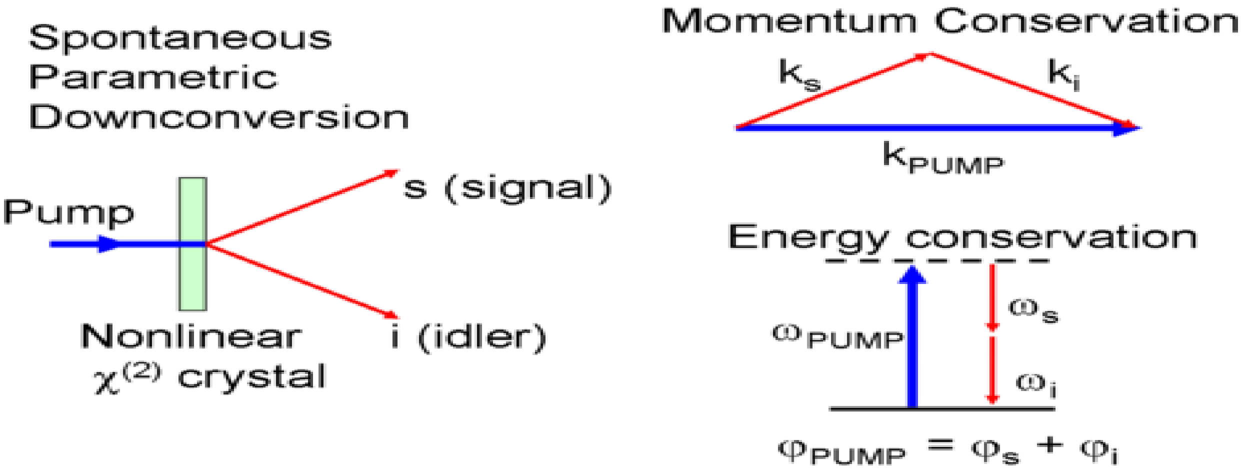
If we State The , **The Pump Photons** [n_3] , where [n_3] = The Third Harmonic ,

Their Position Relation is [n_3] = [n_1] + [n_2] → $[\frac{4\pi r^2}{3}].\ f_1 + E_{2-1} + E_{2-2}$

Their Energy Relation is [w_3] = [w_1] + [w_2] → $f_1 + f_{2-1} + f_{2-2}$

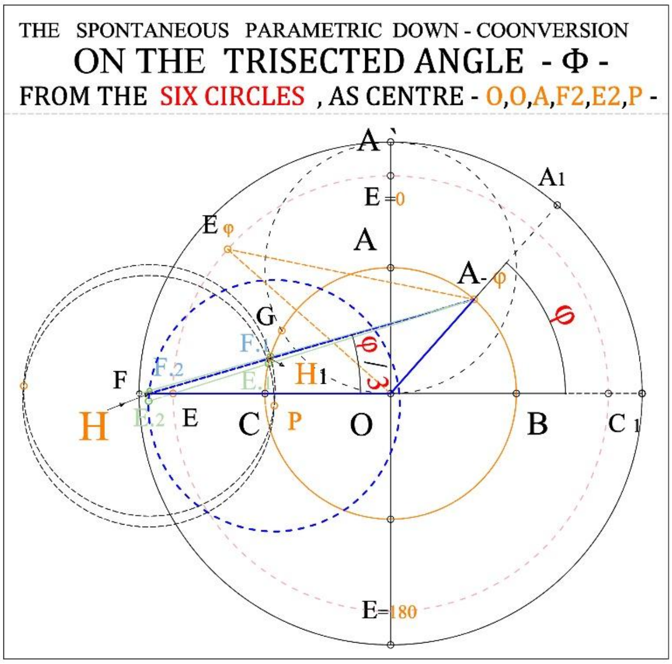
Their Vector Relation is [w_P] = [w_S] + [w_I] → $\overline{B_2} + \overline{B_{2-1}} + \overline{B_{2-2}}$

(8) IN SPDC Mechanism **:** Fig-5-



The Spontaneous Parametric Down-Conversion

An SPDC Scheme with The Type , I , Output → → →



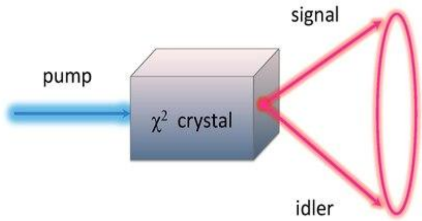


Figure-5- : The Spontaneous Parametric Down-Conversion , From The SIX Circles .

Their Position Relation is $[n_3] = [n_1] + [n_2] \rightarrow [\frac{4\pi r^2}{3}].\ f_1 + E_{2-1} + E_{2-2} = 3.[\frac{4\pi r^2}{3}].\ f_1$

Their Energy Relation is $[w_3] = [w_1] + [w_2] \rightarrow\ f_1 + f_{2-1} + f_{2-2}$

Their Vector Relation is $[w_P] = [w_S] + [w_I] \rightarrow\ \overline{B_2} + \overline{B_{2-1}} + \overline{B_{2-2}}$

Octave Positive Relation $[n_3] = [n_1] + [n_2] \rightarrow [n_6] = 2.[n_3] = 6.[n_1]$

Octave Energy Relation $[w_3] = [w_1] + [w_2] \rightarrow [B\ \widehat{H}\ A_\varphi] + \{[O\ \widehat{A_\varphi}\ H] = 2.[B\ \widehat{H}\ A_\varphi]\}$

Octave Vector Relation is $[w_P] = [w_S] + [w_I] \rightarrow$

(9) THE QUANTUM - OPTICAL ENERGY PROOF : Fig-5-

Analysis :

The Directional Triangle , $\mathbf{E_{\varphi} A_{\varphi} O}$, of the Angle { $E_{\varphi} \widehat{A_{\varphi}} O$ } is the most Stable Geometric Formation in the System of the 6-Circles , Because it is Similar to [$F A_1 C_1$] and within the Stable Circle **[O, OA\` = 2.OB = 2.OA$_{\varphi}$ = OF = OC$_1$= C$_1$A$_1$] ,** where its Rotation is at the Common Center of **O** , and the Scanning Angle **{ $A_{\varphi} \widehat{O} B$ } ,** from the Common Side $\overrightarrow{\mathbf{OA_{\varphi}}}$ **.** When the Energy Triangle , **$E_{\varphi} A_{\varphi}$ O ,** Rotates on the Common Center **O** , then the **Motion ≡ Energy** is transferred to the 6-Circles of the Common System that form the angle { **$A_{\varphi} \widehat{H}$ O** } , such that the Angle **{ B $\widehat{O}$ A_{φ} } ≡ 3. { B $\widehat{H}$ A_{φ}} ,** and the Quantized Energy $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1 = [\frac{4\pi r^2}{3}].f_1 + \{ E_{2-1} = E_{2-2} = [\frac{4\pi r^2}{3}].f_1 \} = \mathbf{3.E_1}$

In Mechanics , **Cauchy** , have Proved that ,

1,,, The Ellipsoid of Inertia and Angular Velocity are Constant and Perpendicular between of such $\rightarrow J_1 w_1{}^2 + J_2 w_2{}^2 + J_3 w_3{}^2 =$ **2E** = Constant = $\overleftrightarrow{\mathbf{B}}$ = **Spin** , and in the case of zero Torque at the Support Point **O** , then the rolling of a Solid is the Rolling of the Ellipsoid of the Angular Velocity , $\overline{\boldsymbol{\omega}}$, on the Solid Plane . either of the **Polar** ≡ **Polhode ,** ON for the **Antipolar** ≡ **Herpolhode**

2,,, A Cross Section under Tension remains Flat only on the circumference of the Circle , or a **Flat Space** , **under the ENERGY of Tension** , **remains Flat only** when the Plane becomes a Circle , **That is** . The Photon carries the Energy ≡ Herpolhode , and The Signal = $\overleftrightarrow{\mathbf{B}} = \vec{c}\,\pi.[\,\overrightarrow{\mathbf{OA_{\varphi}}}\,]^2$, of the Conjugated Circle (**O , OA\`**) to the **Storehouse** of 6-Circles = **Polhode** , and to the Inert Energy Storehouse ≡ **Anti-Polhode** . [125] .

3,,, In the Triangular-Mechanism **[$E_{\varphi}A_{\varphi}O$]** of the Relation **$E_{\varphi} A_{\varphi}$= 2.OA$_{\varphi}$,OA$_{\varphi}$ ⊥ OE$_{\varphi}$** Applies as applies in the Mechanism {**2-Vectors , 3-Poles Rotating Mechanism**}where the Cubic-Energy is Doubled and for X = $\mathbf{E_1} = [\frac{4\pi r^2}{3}].f_1$, **Z** is found such that → | Z |³ = 2.|**X**|³ ←

(10) THE MECHANICAL METHOD - OF PHOTONS ENERGY QUANTIZATION.

THE -STEPS : Fig-2-5-

1.. SEE STEP-[6 + 7] , Of the Geometric Method of Trisection , Where the Quantized Energy of the Photon , the **SPIN ≡ $\widetilde{\mathbf{B}}$** equals $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1$. But why $\mathbf{E_3}$ and not $\mathbf{E_1}$, is that The Triangular-Mechanism [**$E_{\varphi}A_{\varphi}O$**] , to Operate in the same Polar **(wr)²** , Needs a Greater Total Energy of the Fundamental as → $\mathbf{E_{TOTAL}}$**= Spin . w = $\bar{\mathbf{S}}$.w = (h / 2π).2π.f = h . f** = **2. $[\frac{4\pi r^2.f1}{3}]$. $[\frac{n(n+1)}{2}]$ = $[\frac{4\pi r^2.f1}{3}]$ n.(n+1) ,** where for **n = 2 , 4 , 6** , are the **3-Octave** .

2.. SEE [125] , where the Polar **(wr)²** is the Circle [**O, O A_{φ}**] , where the Motion at Point **O** is only the Rotation ≡ **$\widetilde{\mathbf{B}}$ ≡ $\bar{\mathbf{c}}$.π.[O A_{φ}] ² .** This Quantity of Energy in the Energy Cycle of its **Antipolar** , is Stored in the 6-Circles as a UNIT Quantity of Total Energy and which comes from the **Helical Motion** ≡ $\bar{c}$. **2π.[O A_{φ}] ² . [OA_{φ}]^4**

3.. SEE from Geometric Proof the [**d**] where , The Angle {**B $\widehat{O}$ A_{φ}**}**= 3.[O $\widehat{H}$ A_{φ}]** and

Consequently the Energy Relationship between Scan Angles and Frequencies is ,

→ ***Angle*** - [B $\widehat{H}$ A_φ] + {[O $\widetilde{A_\varphi}$ H] = 2.[B $\widehat{H}$ A_φ]} **&** ***Frequency*** $f_p = \{\frac{\sigma.\Phi}{2\pi r}\}=\{\frac{\overline{\overline{B_n}}}{\pi^2.[OA_\varphi]^4}\}$

4.. FORM , On the Mechanism of the 6-Energy Cycles , The MOULD of the Energy Angle [B $\widehat{H}$ A_φ] of the Mechanism of UNEQUAL Vectors , which is the Triangular-Mechanism = [$\mathbf{E_\varphi A_\varphi O}$ **]** , Direction the Vector $\overrightarrow{\mathbf{O\,A_\varphi}}$, on which is valid the Trisection of the Energy Angle [A_φ $\widehat{O}$ B] = 3.[B $\widehat{H}$ A_φ]

5... CHOOSE , From the [n_3] , [n_6] Integer Octaves the Vector , $\overrightarrow{\mathbf{O\,A_{\varphi=3}}}$, or the $\overrightarrow{\mathbf{O\,A_{\varphi=6}}}$, and PLACE it On the Mechanism of 6-Energy Cycles and **DEFINE** the Point **H** and the Vector $\overleftrightarrow{E_3}$ or $\overleftrightarrow{E_6}$, at the Center **O** , like **4…**

For the Vectors $\overrightarrow{\mathbf{O\,A_{\varphi=3}}}$, $\overrightarrow{\mathbf{O\,A_{\varphi=6}}}$, it holds → $\overleftrightarrow{E_3} = 3.\overleftrightarrow{E_1}$ & $\overleftrightarrow{E_6} = 3.\overleftrightarrow{E_2}$ ←

which Is →→ **The Integer Quantization of Photons** ←← or the Same

The Parametric Transformation of the Spin Down …o.e.d.

6…REMARKS :

1).. Since ***The Frequency*** in the Material-Point Exists from the Balance of ,

→ The Two – Opposite Rotational – Energies = ± $\overline{\mathbf{B}}$ or the Spin Relation , and which is

→ $\overline{B}\,\overline{w} = L = \frac{1}{2}J_1 w_1{}^2 + \frac{1}{2}J_2 w_2{}^2 + \frac{1}{2}J_3 w_3{}^2$, $\overline{B} \equiv \pm$ Spin $\overline{S}$,, as

$\overline{B} = \frac{J.w}{2} = \frac{\pi r^4}{4}[2\pi f] = \frac{\pi^2 r^4}{2}[\,f\,] \equiv [\,\mathbf{Constant*f}\,] \equiv [\frac{2L}{\overline{w}}] = \frac{2L}{2\pi f} = [\,\frac{L}{\pi}\,].[\,\frac{1}{f}\,] = \frac{4r.L}{(1+\sqrt{5})\sigma}$, or is

$\overline{\mathbf{B}} = \frac{4r.L}{(1+\sqrt{5}).\sigma} = \frac{2r.[\,L=hf\,]}{(1+\sqrt{5}).\sigma} = \frac{hf}{2\pi f} = [\,\frac{h}{2\pi}\,] \equiv$ **SPIN** ,, where **L = h f** = Constant , and

where Frequency is Related to Φ as → $\mathbf{f_n} = [\,\frac{2}{\pi^2 r^4}\,].\overline{B} \equiv [\,\frac{1+\sqrt{5}}{2}\,]\frac{\boldsymbol{\sigma}}{\mathbf{2\pi r}} \equiv [\frac{\Phi\,\sigma}{2\pi\,r}]$ ← ..(6a)

2).. Since The Present **Trisection Method** is Based on An -**Directional Triangle**– [E_φO A_φ] of Diameter [E_φ A_φ= 2.O A_φ] of Circle {**O, O A** $_\varphi$} **,** and which Vector $\overrightarrow{\mathbf{OA_\varphi}}$, **Rotates through** the **center O** , is **Forming** thus ANY-Angle {**B** $\widehat{\mathbf{O}}$ **A** $_{\varphi=0-180^o}$} from 0^o to 180^o. On This **Triangle-Circle-Mechanism** are Drawn with < **A Ruler & a Compass** > The **6-Conjugate Circles** of Radius $\overrightarrow{\mathbf{OA_\varphi}}$ on which is Defined Point **H** , and Angle {**B** $\widehat{\mathbf{H}}$ $\mathbf{A_\varphi}$} **such That Angle** ⇒ { **B** $\widehat{\mathbf{O}}$ $\mathbf{A_\varphi}$} = **3.**{**B** $\widehat{\mathbf{H}}$ $\mathbf{A_\varphi}$}

The Point **H** , is **That which was Indicated by Archimedes** Trisection **Method** . and on This **SIX-Wave Circles Mechanism** , **Photons Quantized Energy** $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1 = \mathbf{3.E_1}$ **,**

3).. When The **Directional Triangle** – [E_φO A_φ] of Diameter [E_φ A_φ= 2.O A_φ] of the initial Circle{**O, O A** $_\varphi$}, and the Vector $\overrightarrow{\mathbf{OA_\varphi}}$, **is Constantly Placed** at a Constant Vector $\overrightarrow{\mathbf{OR}}$ Then is the [Markos , 2-**Vectors** 3-**Poles** Rotating-**Mechanism**] at the constant Point **O**, where $\overrightarrow{\mathbf{OA_\varphi}}$ **is Unmovable at Angle {B** $\widehat{\mathbf{O}}$ $\mathbf{A_\varphi}$**}**, On this **New** Mechanism the **Directional Triangle** – [E_φO A_φ] Forms the **New** Triangles , PAD , PBE_φ **,** where $[CD]^3 = 2.[CE_\varphi]^3$.

4).. When The **Directional Triangle** – [E_φO A_φ] of Diameter [E_φ A_φ= 2.O A_φ] of the initial Circle{**O, O A** $_\varphi$}, and the Vector $\overrightarrow{\mathbf{OA_\varphi}}$, **is Constantly Placed** at a Constant Vector $\overrightarrow{\mathbf{RO}}$ Then is the Area of Circle {**O, O A** $_\varphi$} **= π [O A** $_\varphi$**]² = { CMNH } Square .**

(11) : <u>Η ΓΕΩΜΕΤΡΙΚΗ ΜΕΘΟΔΟΣ ΓΙΑ ΤΗΝ ΤΡΙΧΟΤΟΜΗΣΗ ΟΙΑΣΔΗΠΟΤΕ ΓΩΝΙΑΣ</u> $\{A_\varphi.\widehat{O}.B\}$ **<u>ΜΕ ΧΑΡΑΚΑ & ΔΙΑΒΗΤΗ</u> .**

<u>ΤΑ ΒΗΜΑΤΑ :</u> Fig-2-

1.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**]= Με Κέντρο Ο και ακτίνα **, Ο**A_φ, τον Κύκλο (Ο , Ο A_φ= ΟΒ = ΟΑ) που τέμνει την ευθεία ΟΒ στο Σημείο **Β** , την ευθεία ΟΑ στο Σημείο **Α** , και όπου **ΟΑ ⊥ ΟΒ** , [**b**] = Τόν Κύκλο **, [O, OA\` = 2.OB ] ,** και Κύκλο (Α,ΑΟ = ΑΑ\`) που Ορίζουν το Κοινό Σημείο **G** , Και τόν Κύκλο [G , GO] που τέμνει την προεκτεινόμενη ευθεία ΒΟ στο Σημείο $\mathbf{E \equiv E_{90}}$, [**c**] = Τον Κύκλο [Ο,ΟΕ = Ο $\mathbf{E_{90}}$ = Ο $\mathbf{E_o}$= $\sqrt{3}$.ΟΑ] .

2.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**] = Τόν Κύκλο [Ο,ΟΑ\`] που τέμνει αντίστοιχα την προέκταση ΒΟ στα Σημεία **F** , $\mathbf{C_1}$, [**b**] = Επεκτείνετε την ευθεία **AG** στο Σημείο $E \equiv E_{90}$.

3.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**] = Το ευθύγραμμο Τμήμα $\mathbf{A_\varphi}$,**F** . το οποίο τέμνει τον Συζυγή κύκλο (Ο , Ο A_φ) στο Σημείο $\mathbf{F_1}$, και τον κύκλο (F_1, $F_1O = F_1F_2$) στο σημείο $\mathbf{F_2}$, τού ευθύγραμμο Τμήματοε $\mathbf{A_\varphi}$,**F ,**.., [**b**] = Το ευθύγραμμο Τμήμα $\mathbf{A_\varphi}$,$\mathbf{E \equiv}$ E_{90} , που τέμνει τον Συζυγή Κύκλο (Ο ,Ο A_φ) στο Σημείο $\mathbf{E_1}$, και τον Κύκλο (E_1, $E_1O = E_1E_2$) στο Σημείο $\mathbf{E_2}$ **,** επί τής ευθείας $\mathbf{A_\varphi}$,**Ε** Α .

4.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**] = Τόν Συζευγμένο Κύκλο [F_2 , F_2 F_1=F_1O] στο Κέντρο $\mathbf{F_2}$, [**b**] = Τόν Συζευγμένο Κύκλο [E_2 , E_2 E_1= E_1O] στο Κέντρο $\mathbf{E_2}$,.. [**c**] = Τούς 2 παραπάνω Συζευγμένους Κύκλους με Κέντρα τα Σημεία $\mathbf{F_2}$, $\mathbf{E_2}$, και πού Κόβονται μεταξύ τους στο Κοινό Σημείο **P** , έτσι ώστε **{ P ,** $\mathbf{PF_2 = PE_2 = F_1O = E_1O = O\,A_\varphi}$ **}.**

5.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**] = Τόν Συζευγμένο Κύκλο **{ P ,** $\mathbf{PE_2 = PF_2}$ **} ,** Από το Κοινό **P** , το οποίο Τέμνει την Ευθεία γραμμή του Τμήματος στο Σημείο **Η** . [**b**] = Η ευθεία **Η** $\mathbf{A_\varphi}$ **,** τέμνει τον Κύκλο (Ο , Ο A_φ) στο Σημείο $\mathbf{H_1}$, Σχηματίζοντας έτσι τη γωνία **Β** $\widehat{\mathrm{H}}$ $\mathbf{A_\varphi}$ **,** τέτοια ώστε να είναι → Γωνία **{ Β** $\widehat{\mathrm{O}}$ $\mathbf{A_\varphi}$ **}** ≡ **3. { Β** $\widehat{\mathrm{H}}$ $\mathbf{A_\varphi}$ **}**

6.. ΣΧΕΔΙΑΣΤΕ με **Χάρακα και Διαβήτη** , [**a**] = **Τήν Περιστροφική - Σάρωση της Ακτίνας** $\overrightarrow{\mathbf{OA_\varphi}}$ **, εντός τής Γωνίας** $\mathbf{A_\varphi\,\widehat{O}\,B}$ **, η οποία Μεταφέρει αυτήν την Κίνηση τού Αρχικού Κύκλου [Ο , Ο** $\mathbf{A_\varphi}$ **= ΟΒ = ΟΑ] Στους άλλους 6-Κύκλους όπως αυτοί Αναφέρονται και Κατασκευάζονται στα Κέντρα των παρακάτω ,**
[**b**] = **Τους 6-Κύκλους ,**

a)..Τον Αρχικό Κύκλο [Ο , Ο $\mathbf{A_\varphi}$ **= ΟΒ = ΟΑ] , με την Γωνία στο Κέντρο Ο ,**
b)..Τον Συζευγμένο Κύκλο [Α , Α\` Ο = ΑΑ\` = ΟΒ = AG] , στο Κέντρο Α ,
c)..Τον Κατευθυντήριο Κύκλο [Ο , Ο $\mathbf{E_{90} = OA.\sqrt{3}}$ **]] , στο Κέντρο Ο ,**
d)..Τον Συζευγμένο Κύκλο [$\mathbf{E_2 , E_2E_1 = E_1O = OA}$ **] , στο Συμμετρικό Σημείο** $\mathbf{E_2}$.
ε)..Τον Συζευγμένο Κύκλο [$\mathbf{F_2 , F_2F_1 = F_1O = OA}$ **] , στο Συμμετρικό Σημείο** $\mathbf{F_2}$.
f)..Τον Συζευγμένο Κύκλο [P , $\mathbf{P\,F_2 = P\,E_2 = OA}$ **] , στο Κοινό Σημείο P .**

7.. Με **Χάρακα και Διαβήτη** , έχουν κατασκευαστεί οι **6**-Κύκλοι a).,b).,c).,d).,e).,f)**.**, Το Κατευθυντήριο Τρίγωνο , $\mathbf{E_\varphi\,A_\varphi}$ **Ο ,** και από το Κοινό Σημείο **P**, τον Κοινό τους Συζυγή κύκλο **{ P ,** $\mathbf{PE_2 = PF_2}$ **}**,

8.. ΝΑ ΑΠΟΔΕΙΧΘΕΙ ότι **Με Χάρακα και Διαβήτη** , Πραγματοποιείται η Τριχοτόμηση Οποιασδήποτε Γωνίας , και είναι ο Μηχανισμός επί τού οποίου Σχηματίζονται οι **6** Αρμονικοί Κροσσοί , και ΕΤΣΙ το Άθροισμα αυτών των Ισοχρωματικών Κβαντισμένων Προτύπων Ζωνών και Τάξης **Κροσσών Συμβολής** , είναι η Συνολική Ενέργεια .

(12) Η ΓΕΩΜΕΤΡΙΚΗ ΑΠΟΔΕΙΞΗ ΤΗΣ ΤΡΙΧΟΤΟΜΗΣΗΣ :

α)... Επειδή το Τρίγωνο , H_1 O A_φ , είναι Ισοσκελές (η ακτίνα $OH_1 = OA_\varphi$ **) , Επομένως το Ευθύγραμμο Τμήμα** $OA_\varphi = OH_1$, **και η γωνία** $[O\widehat{H_1}A_\varphi] = [O\widehat{A_\varphi}H_1]$,

β)... Επειδή το Τρίγωνο H_1 O H , είναι Ισοσκελές (η ακτίνα $H_1O = H_1H$ **) , Επομένως το Ευθύγραμμο Τμήμα** $H_1O = H_1H$, **και η γωνία** $O\widehat{H}H_1 = H\widehat{O}H_1$ **.**

γ)... Επειδή η Εξωτερική Γωνία { $B\widehat{O}A_\varphi$ } του τριγώνου , O A_φ H , είναι ίση με τις Δύο Εσωτερικές , Επομένως η Γωνία $\{B\widehat{O}A_\varphi\} = \{O\widehat{A_\varphi}H\} + \{O\widehat{H}A_\varphi\}$ ....(c)

δ).. Επειδή η Εξωτερική Γωνία { $O\widehat{H_1}A_\varphi$ } , του τριγώνου , O H_1 H , είναι ίση με τις δύο Εσωτερικές , Επομένως η Γωνία $O\widehat{H_1}A_\varphi$ } = $O\widehat{H}H_1$+{ $H\widehat{O}H_1$, και επειδή το Τρίγωνο , O H_1H είναι Ισοσκελές , το Ευθύγραμμο Τμήμα $H_1H = H_1O$, καθώς και η Γωνία $\{O\widehat{H}H_1\} = \{H\widehat{O}H_1\}$ **. Με αυτόν τον τρόπο , στις ίσες γωνίες ισχύει η σχέση Γωνία** $\{O\widehat{H_1}A_\varphi\} = \{O\widehat{H}H_1\}+\{O\widehat{H}H_1\}=2.[O\widehat{H}H_1]$........(d)

ε).. Εισάγοντας την (δ) εντός τής (γ) , τότε η Γωνία $\{B\widehat{O}A_\varphi\} = \{O\widehat{A_\varphi}H = O\widehat{H_1}A_\varphi\} + \{O\widehat{H}A_\varphi\} = [2.(O\widehat{H}H_1) = 2.(O\widehat{H}A_\varphi)] + (O\widehat{H}A_\varphi) = 3.[O\widehat{H}A_\varphi]$ ....**ο.ε.δ.**

(13) Η ΚΒΑΝΤΟΟΠΤΙΚΗ ΕΝΕΡΓΕΙΑΚΗ ΑΠΟΔΕΙΞΗ : Fig-2-5-

Ανάλυση ,

Το Κατευθυντήριο Τρίγωνο , $E_\varphi A_\varphi O$, τής Γωνίας { $E_\varphi\widehat{A_\varphi}O$ } είναι ο πλέον Σταθερός Γεωμετρικός Σχηματισμός στο Σύστημα των 6-Κύκλων , Διότι είναι Όμοιο τού , F A_1C_1] , Και εντός τού Σταθερού Κύκλου **[O, OA\` = 2.OB = 2.OA_φ = OF = $OC_1 = C_1A_1$]** όπου η Περιστροφή του γίνεται στο Κοινό Κέντρο του **O** , η δε Γωνία Σάρωσης **{$A_\varphi\widehat{O}B$ },** από τήν Κοινή Πλευρά $\overrightarrow{OA_\varphi}$. Όταν το Ενεργειακό Τρίγωνο , **$E_\varphi A_\varphi O$,** Περιστρέφεται επί τού Κοινού Κέντρου **O** , τότε η **Κίνηση ≡ Ενέργεια** μεταφέρεται στους 6-Κύκλους τού Κοινού Συστήματος πού σχηματίζουν την γωνία { $A_\varphi\widehat{H}O$ } ώστε η Γωνία $\{B\widehat{O}A_\varphi\} \equiv 3.\{B\widehat{H}A_\varphi\}$ και η **Κβαντοποιημένη** Ενέργεια $E_3 = [\frac{4\pi r^2}{3}].f_1 = [\frac{4\pi r^2}{3}].f_1 + \{E_{2-1} = E_{2-2} = [\frac{4\pi r^2}{3}].f_1\} = 3.E_1$

Στην Μηχανική , Cauchy , έχουν Αποδειχθεί ότι

1,,, Το Ελλειψοειδές Αδράνειας και Γωνιακής ταχύτητας ειναι Σταθερά και Κάθετα μεταξύ των όπως → $J_1w_1^2 + J_2w_2^2 + J_3w_3^2 = 2E$ = Σταθερό = $\vec{B}$ = Spin , και στην περίπτωση μηδενικής Ροπής στο Σημείο Στήριξης O , η κύλιση Στεραιού είναι η Κύλιση τού Ελλειψοειδούς της Γωνιακής ταχύτητας , $\overline{\omega}$, επί τού Στερεού Επιπέδου . είτε της Πολικής = **Polhode ,** ΕΠΙ τής Αντιπολικής = **Herpolhode** .

2,,, Μια Διατομή υπό Τάση παραμένει Επίπεδη μόνο στην περιφέρεια του Κύκλου , ή ένας Επίπεδος Χώρος , υπό την ΕΝΕΡΓΕΙΑ Τάσης , **παραμένει Επίπεδη μόνο όταν το Επίπεδο γίνεται Κύκλος** , Δηλαδή .Το Φωτόνιο μεταφέρει την ενέργεια = **Herpolhode** **Το Σήμα** = $\vec{B} = \vec{c}\,\pi.[\overrightarrow{OA_\varphi}]^2$, του Συζευγμένου κύκλου (**O , OA\`**) στην **Αποθήκη** των 6-Κύκλων = **Polhode** , και στην Αδρανή Ενεργειακή Αποθήκη =**Anti-Polhode** . [125] .

3,,, Στον Τριγωνικό-Μηχανισμό [**$E_\varphi A_\varphi O$**] ισχύει η Σχέση **$E_\varphi A_\varphi = 2.OA_\varphi$,$OA_\varphi \perp OE_\varphi$** όπως ισχύει στον Μηχανισμό **{2-Vectors , 3-Poles** Rotating **Mechanism },** όπου Διπλασιάζεται η Κυβική-Ενέργεια και για X = $E_1 = [\frac{4\pi r^2}{3}].f_1$, βρίσκεται το Z ώστε → $|Z|^3 = 2.|\mathbf{X}|^3$ ←

(14) Η ΜΗΧΑΝΙΚΗ ΜΕΘΟΔΟΣ -ΚΒΑΝΤΩΣΗΣ ΤΗΣ ΕΝΕΡΓΕΙΑΣ-ΦΩΤΟΝΙΩΝ

ΤΑ -ΒΗΜΑΤΑ : Fig-5-

1.. ΔΕΙΤΕ το ΒΗΜΑ-[6 + 7] , Της Γεωμετρικής Μεθόδου της Τριχοτόμησης , Όπου η **Κβαντοποιημένη** Ενέργεια του Φωτονίου , **Το SPIN** $\equiv \widetilde{\mathbf{B}}$ ισούται με $\mathbf{E_3 = [\frac{4\pi r^2}{3}].f_1}$.

Το Γιατί όμως $\mathbf{E_3}$ **και όχι** $\mathbf{E_1}$ **,** είναι στο ότι **Ο Τριγωνικός-Μηχανισμός** $[\mathbf{E_\varphi A_\varphi O}]$**, για Να Λειτουργήσει στην ίδια Πολική (wr)²** **, Χρειάζεται Μεγαλύτερη Συνολική Ενέργεια της Θεμελιώδους όπως→** $\mathbf{E_{TOTAL} = Spin\ .\ w = \bar{S}.w = (\ h\ /\ 2\pi\ ).2\pi.f\ = h\ .\ f}$

2. $\mathbf{[\frac{4\pi r^2.f1}{3}]\ .\ [\frac{n(n+1)}{2}] = [\frac{4\pi r^2.f1}{3}]\ n.(n+1)}$ **,** όπου για **n** = 2 , 4 , 6 , είναι οι **3-Οκτάβες** .

2.. ΔΕΙΤΕ το [125] , όπου η **Πολική (wr)²** είναι ο Κύκλος [**O, O** $\mathbf{A_\varphi}$] , όπου η Κίνηση στο Σημείο **O** είναι μόνο η Περιστροφή $\equiv \widetilde{\mathbf{B}} \equiv \bar{\mathbf{c}}\ .\pi.[\mathbf{O\ A_\varphi}]^2$ **.** Αυτή η Ποσότητα της **Ενέργειας στον Ενεργειακό Κύκλο τής Αντιπολικής του** , Αποθηκεύεται στους **6**-Κύκλους ως **ΜΟΝΑΔΙΑΙΑ** Ποσότητα της Συνολικής Ενέργειας και η οποία προέρχεται από την **Ελικοειδής Κίνηση** $\equiv\ \bar{c}\ .\ \mathbf{2\pi.[\ O\ A_\varphi]^2\ .\ [OA_\varphi]^4}$

3.. ΔΕΙΤΕ από **Γεωμετρική Απόδειξη το** [δ] όπου , **Η Γωνία**$\{\mathbf{B\ \widehat{O}\ A_\varphi}\} = \mathbf{3.[\ O\ \widehat{H}\ A_\varphi]}$
Και **Συνεπώς η Ενεργειακή Σχέση μεταξύ Γωνιών -Σάρωσης και Συχνοτήτων**

Είναι→ $[\ B\ \widehat{H}\ A_\varphi] + \{[O\ \widehat{A_\varphi}\ H] = 2.[\ B\ \widehat{H}\ A_\varphi]\}$ **&** $f_p = \{\frac{\sigma.\Phi}{2\pi r}\} = \{\frac{\overline{\overline{B_n}}}{\pi^2.[OA_\varphi]^4}\}$

4.. ΣΧΗΜΑΤΙΣΤΕ , Επί τού Μηχανισμού των **6**-Ενεργειακών Κύκλων , **Το ΚΑΛΟΥΠΙ της Ενεργειακής Γωνίας** $[\ B\ \widehat{H}\ A_\varphi]$ τού Μηχανισμού Των ΑΝΙΣΩΝ–Διανυσμάτων **,** που είναι ο **Τριγωνικός-Μηχανισμός** $[\mathbf{E_\varphi A_\varphi O}]$ **, Κατεύθυνσης** το Διάνυσμα $\overrightarrow{\mathbf{O\ A_\varphi}}$ επι **του οποίου ισχύει η Τριχοτόμηση της Ενεργειακής Γωνίας** $[\ A_\varphi\ \widehat{O}\ B\ ] = 3.[\ B\ \widehat{H}\ A_\varphi]$

5. ΔΙΑΛΕΞΕΤΕ , Από τίς $[\ n_3\ ]$, $[\ n_6\ ]$ **Ακέραιες Οκτάβες** το Διάνυσμα , $\overrightarrow{\mathbf{O\ A_{\varphi=3}}}$ ή το $\overrightarrow{\mathbf{O\ A_{\varphi=6}}}$, και **ΤΟΠΟΘΕΤΗΣΤΕ** το Επί τού Μηχανισμού των **6**-Ενεργειακών Κύκλων**.**
ΟΡΙΣΑΤΕ το Σημείο Η **και το Διάνυσμα** $\overleftrightarrow{E_3}$ ή $\overleftrightarrow{E_6}$ **, στο Κέντρο O ,** όπως το **4…**
Για τα Διανύσματα $\overrightarrow{\mathbf{O\ A_{\varphi=3}}}$, $\overrightarrow{\mathbf{O\ A_{\varphi=6}}}$ **, ισχύει** → $\overleftrightarrow{E_3} = 3.\overleftrightarrow{E_1}$ & $\overleftrightarrow{E_6} = 3.\overleftrightarrow{E_2}$ ← που

Είναι → -→ → Η Ακέραια Κβάντωση των Φωτονίων ← ←← ή το Ίδιο
Η Παραμετρική μετατροπή της Στροφορμής προς τίς Κάτω Οκτάβες …ο.ε.δ.

6…**ΠΑΡΑΤΗΡΗΣΗ :** Δεδομένου ότι η Συχνότητα στο **Υλικό - Σημείο** Υπάρχει από την Ισορροπία → Των Δυο – Αντίθετων Περιστροφικών – Ενεργειών = $\pm\ \bar{B}$
ή Την σχέση **Στροφορμής** → $\bar{B}\,\bar{w}\ = L = \frac{1}{2}J_1 w_1{}^2 + \frac{1}{2}J_2 w_2{}^2 + \frac{1}{2}J_3 w_3{}^2, \bar{B}\ \equiv \pm$ Spin $\bar{S}$, ως

$\bar{B}\ = \frac{J.w}{2} = \frac{\pi r^4}{4}[2\pi f\,] = \frac{\pi^2 r^4}{2}[\ f\ ] \equiv [\ \mathbf{Constant*f}\ ] \equiv \frac{2L}{\bar{w}} = \frac{2L}{2\pi f} = [\ \frac{L}{\pi}\ ].[\ \frac{1}{f}\ ] = \frac{4r.L}{(1+\sqrt{5}\,)\sigma}$, ή όπως

$\bar{\mathbf{B}}\ = \frac{4r.L}{(1+\sqrt{5}\ ).\sigma} = \frac{2r.[\ L=hf\,]}{(1+\sqrt{5}\ ).\sigma} = \frac{hf}{2\pi f} = [\ \frac{h}{2\pi}\ ] \equiv$ **SPIN** , όπου $L = h\ f =$ Σταθερά , και όπου

Η Συχνότητα Σχετίζεται με το Φ όπως → $\mathbf{f_n} = [\ \frac{2}{\pi^2 r^4}\ ].\bar{B} \equiv [\ \frac{1+\sqrt{5}}{2}\ ]\ \frac{\boldsymbol{\sigma}}{\mathbf{2\pi r}} \equiv [\frac{\Phi\ \sigma}{2\pi\ r}]$ ← ...(6a)

(15) **The Galois Theory**) and the **Theory of Constructible Numbers**

THE GALOIS FIELD CONTRADICTION THEORY. FOR 60° ANGLE TRISECTION

trisect a 60-degree angle using only an unmarked straightedge and a compass. Trisecting a 60° angle requires constructing a 20° angle. Through field extensions and Galois theory, this geometric task translates into an algebraic requirement to solve an irreducible cubic polynomial whose splitting field has a degree not equal to a power of 2. viXra.org +4

Here is a breakdown of how the proof works step-by-step.

1. Constructible Numbers Rule

In classical geometry, you start with a base field of rational numbers, $\mathbb{Q}$. Every operation using a compass and a straightedge corresponds algebraically to finding the intersection of lines and circles. JETIR +1

- Intersecting lines creates linear equations (keeping coordinates in $\mathbb{Q}$).
- Intersecting lines with circles or circles with circles introduces quadratic equations. JETIR +1

Therefore, each step can at most create a field extension of degree 2. A number α is geometrically constructible if and only if it lies in a field extension K over $\mathbb{Q}$ such that the degree of the extension is a power of 2:

$$[\mathbb{Q}(\alpha) : \mathbb{Q}] = 2^m \quad \text{for some integer } m \geq 0$$

3. The Irreducibility Barrier

To find the degree of the extension $[\mathbb{Q}(\cos 20°) : \mathbb{Q}]$, we test if the polynomial $8x^3 - 6x - 1$ can be factored over the rational numbers $\mathbb{Q}$. James Milne

By substituting $y = 2x$, the equation simplifies to the monic polynomial:

$$y^3 - 3y - 1 = 0$$

According to the Rational Root Theorem, the only possible rational roots for this simplified polynomial are ± 1:

- If $y = 1$: $(1)^3 - 3(1) - 1 = -3 \neq 0$
- If $y = -1$: $(-1)^3 - 3(-1) - 1 = 1 \neq 0$

Because it has a degree of 3 and possesses no rational roots, the polynomial is **irreducible over $\mathbb{Q}$**. James Milne +3

4. The Galois Field Extension Contradiction

Because the minimal polynomial for $\cos(20°)$ is an irreducible cubic, the field extension generated by constructing this value has a degree equal to the polynomial's degree:

$$[\mathbb{Q}(\cos 20°) : \mathbb{Q}] = 3$$

According to the field tower multiplicativity property in Galois theory, a field extension of degree 3 can never be built from a chain of degree-2 square-root extensions:

$$3 \neq 2^m \quad \text{for any integer } m$$

Since the extension degree 3 is not a power of 2, $\cos(20°)$ is mathematically unconstructible. Consequently, a 60° angle cannot be trisected with a compass and a straightedge. wdv.com +4

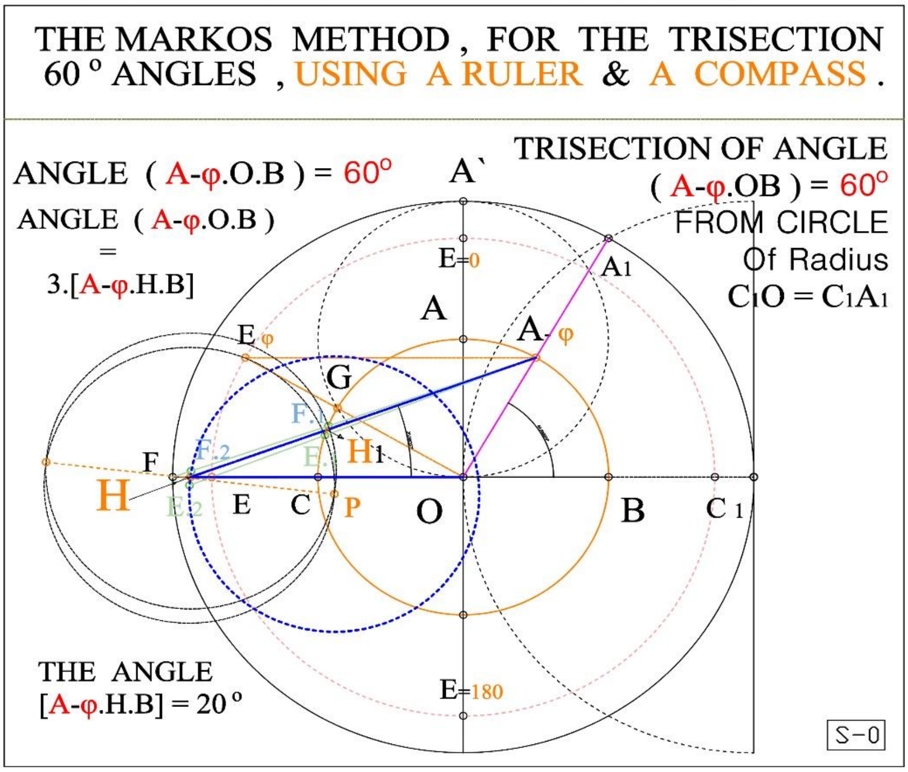


Figure-6- :

The Geometrical **Method of Trisecting** Angle [B $\widetilde{O}$ A_φ] = 60° Using → → → → → → → → **A Ruler & a Compass**

1..The **Directional Triangle** – [E_φO A_φ] **Forms** [B $\widetilde{O}$ A_φ]

2..The SIX Conjugate-Circles **Define** Point **H** , Such that

3..The Angle [B $\widetilde{O}$ A_φ] = **3. [**Angle { B $\widetilde{H}$ A_φ } **]**

Maekos 16 / 7 / 2026

(16) THE ALGEBRAIC TRISECTION OF Angle 60°
USING THE ALGEBRAIC EQUATIONS … Fig-6-

1.

THE ALGEBRAICAL TRISECTION OF 60° Angle
USING THE ALGEBRAIC EQUATIONS.

The three roots for the third-degree equation with coefficients $a = 8$, $b = 0$, $c = -6$, and $d = -1$ are $x_1 = \cos\left(\frac{\pi}{9}\right) \approx \mathbf{0.9397}$, $x_2 = \cos\left(\frac{7\pi}{9}\right) \approx -\mathbf{0.7660}$, and $x_3 = \cos\left(\frac{13\pi}{9}\right) \approx -\mathbf{0.1736}$.

Step-by-Step Method to Solve a General Cubic Equation

A standard third-degree equation is written as:

$$ax^3 + bx^2 + cx + d = 0$$

1. Eliminate the Quadratic Term

Transform the general cubic equation into a "depressed cubic" ($t^3 + pt + q = 0$) by substituting $x = t - \frac{b}{3a}$. This removes the x^2 term.

$$p = \frac{3ac - b^2}{3a^2}, \quad q = \frac{2b^3 - 9abc + 27a^2 d}{27a^3}$$

2. Calculate the Discriminant

Find the cubic discriminant (Δ) to determine the nature of the roots:

$$\Delta = \frac{q^2}{4} + \frac{p^3}{27}$$

2.

- $\mathbf{\Delta = 0}$: Three real roots, with at least two being equal.
- $\mathbf{\Delta < 0}$: Three distinct real roots (known as *casus irreducibilis*). www.cubicequationsol... +4

3. Resolve Based on Root Nature

- If $\mathbf{\Delta \geq 0}$: Use Cardano's Formula to find the real values:

$$t = \sqrt[3]{-\frac{q}{2} + \sqrt{\Delta}} + \sqrt[3]{-\frac{q}{2} - \sqrt{\Delta}}$$

- If $\mathbf{\Delta < 0}$: Use Vieta's Trigonometric Substitution ($t = r\cos\theta$) to avoid complex numbers in intermediate steps:

$$r = 2\sqrt{-\frac{p}{3}}, \quad \cos(3\theta) = \frac{3q}{2p}\sqrt{-\frac{3}{p}}$$

Wikipedia +3

Numerical Example: Solving $8x^3 - 6x - 1 = 0$

Given your parameters: $a = 8$, $b = 0$, $c = -6$, $d = -1$.

1. Setup the Depressed Equation

Since $b = 0$, the equation is already depressed ($x = t$). Divide the entire equation by $a = 8$ to normalize it:

$$x^3 - \frac{6}{8}x - \frac{1}{8} = 0 \Longrightarrow x^3 - \frac{3}{4}x - \frac{1}{8} = 0$$

From this normalized form:

$$p = -\frac{3}{4}, \quad q = -\frac{1}{8}$$

3

2. Evaluate the Discriminant

Substitute p and q into the discriminant formula:

$$\Delta = \frac{\left(-\frac{1}{8}\right)^2}{4} + \frac{\left(-\frac{3}{4}\right)^3}{27} = \frac{\frac{1}{64}}{4} + \frac{-\frac{27}{64}}{27} = \frac{1}{256} - \frac{1}{64} = -\frac{3}{256}$$

Because $\Delta < 0$, the equation yields **three distinct real roots**, requiring the trigonometric method. www.demonstrations-... +2

3. Apply Trigonometric Identity

We can match our equation to the identity $\cos(3\theta) = 4\cos^3(\theta) - 3\cos(\theta)$. Multiply our original equation by 2:

$$2(4x^3 - 3x) = 1 \Longrightarrow 4x^3 - 3x = \frac{1}{2}$$

Let $x = \cos(\theta)$, which simplifies the equation directly to:

$$\cos(3\theta) = \frac{1}{2}$$

4. Find the Three Angles

Solve for 3θ within the periodic boundaries ($2k\pi$):

$$3\theta = \frac{\pi}{3} + 2k\pi \Longrightarrow \theta = \frac{\pi}{9} + \frac{2k\pi}{3}$$

For $k = 0, 1, 2$, we obtain the three primary angles:

- $k = 0 \Longrightarrow \theta_1 = \frac{\pi}{9}$

4 .

- $k = 0 \Longrightarrow \theta_1 = \frac{\pi}{9}$
- $k = 1 \Longrightarrow \theta_2 = \frac{\pi}{9} + \frac{6\pi}{9} = \frac{7\pi}{9}$
- $k = 2 \Longrightarrow \theta_3 = \frac{\pi}{9} + \frac{12\pi}{9} = \frac{13\pi}{9}$

5. Calculate Final Roots

Compute the cosine values to find the numerical approximations for the roots:

$$x_1 = \cos\left(\frac{\pi}{9}\right) \approx 0.9397$$

$$x_2 = \cos\left(\frac{7\pi}{9}\right) \approx -0.7660$$

$$x_3 = \cos\left(\frac{13\pi}{9}\right) \approx -0.1736$$

✅ Final Answer

The precise analytical and numerical solutions for the given parameters are:

$$x_1 = \cos\left(\frac{\pi}{9}\right) \approx 0.9397$$

$$x_2 = \cos\left(\frac{7\pi}{9}\right) \approx -0.7660$$

$$x_3 = \cos\left(\frac{13\pi}{9}\right) \approx -0.1736$$

THE ALGEBRAIC TRISECTION OF Angle 60° Fig-6-
USING THE EQUATIONS OF TRIGONOMETRY .

THE ALGEBRICAL TRISECTION OF 60° Angle.
USING THE TRIGONOMETRY

AI Overview

The classical trigonometric solution of a third-degree (cubic) equation—often called **Viète's solution**—is used specifically when a cubic equation has three real roots (the *casus irreducibilis*). This classical method uses triple-angle trigonometric identities to directly map the problem onto a known angle, such as **60°**, making it possible to avoid complex numbers during extraction. Wikipedia +4

Here is the step-by-step classical derivation and solution.

1. Reduce the cubic equation

Any general cubic equation $ax^3 + bx^2 + cx + d = 0$ can be transformed into a **depressed cubic** (eliminating the x^2 term) by substituting $x = y - \frac{b}{3a}$. This gives the standard form:

$$y^3 + py + q = 0$$

2. State the triple-angle identity

The classical method depends on matching the depressed cubic to the cosine triple-angle identity:

$$\cos(3\theta) = 4\cos^3(\theta) - 3\cos(\theta)$$

Dividing this identity by 4 and rearranging its terms yields:

$$\cos^3(\theta) - \frac{3}{4}\cos(\theta) - \frac{1}{4}\cos(3\theta) = 0$$

3. Substitute variables to match

To map $y^3 + py + q = 0$ onto the identity, we introduce a scaling factor u and substitute $y = u\cos(\theta)$:

$$(u\cos(\theta))^3 + p(u\cos(\theta)) + q = 0$$

$$u^3\cos^3(\theta) + pu\cos(\theta) + q = 0$$

Divide the entire equation by u^3:

$$\cos^3(\theta) + \frac{p}{u^2}\cos(\theta) + \frac{q}{u^3} = 0$$

4. Solve for the scaling factor

By directly comparing the coefficients of our equation to the identity $\cos^3(\theta) - \frac{3}{4}\cos(\theta) - \frac{1}{4}\cos(3\theta) = 0$, we establish two conditions:

1. **For the linear term:**

$$\frac{p}{u^2} = -\frac{3}{4} \Longrightarrow u^2 = -\frac{4p}{3} \Longrightarrow u = 2\sqrt{-\frac{p}{3}}$$

(Note: This method requires $p < 0$, which guarantees three real roots).

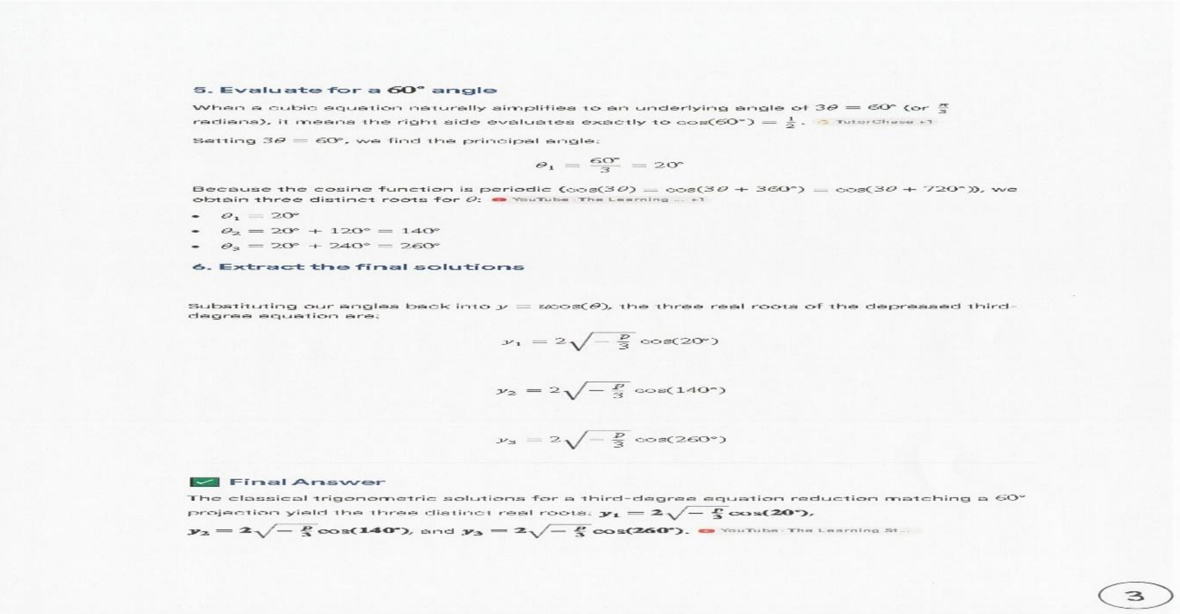
2. **For the constant term:**

$$\frac{q}{u^3} = -\frac{1}{4}\cos(3\theta) \Longrightarrow \cos(3\theta) = -\frac{4q}{u^3}$$

Substituting our definition of u into the cosine expression yields:

$$\cos(3\theta) = -\frac{4q}{\left(2\sqrt{-\frac{p}{3}}\right)^3} = -\frac{q}{2}\left(-\frac{3}{p}\right)^{3/2}$$

2



5. Evaluate for a 60° angle

When a cubic equation naturally simplifies to an underlying angle of $3\theta = 60^\circ$ (or $\frac{\pi}{3}$ radians), it means the right side evaluates exactly to $\cos(60^\circ) = \frac{1}{2}$. TutorChase +1

Setting $3\theta = 60^\circ$, we find the principal angle:

$$\theta_1 = \frac{60^\circ}{3} = 20^\circ$$

Because the cosine function is periodic ($\cos(3\theta) = \cos(3\theta + 360^\circ) = \cos(3\theta + 720^\circ)$), we obtain three distinct roots for θ: YouTube · The Learning ... +1

- $\theta_1 = 20^\circ$
- $\theta_2 = 20^\circ + 120^\circ = 140^\circ$
- $\theta_3 = 20^\circ + 240^\circ = 260^\circ$

6. Extract the final solutions

Substituting our angles back into $y = u\cos(\theta)$, the three real roots of the depressed third-degree equation are:

$$y_1 = 2\sqrt{-\frac{p}{3}}\cos(20^\circ)$$

$$y_2 = 2\sqrt{-\frac{p}{3}}\cos(140^\circ)$$

$$y_3 = 2\sqrt{-\frac{p}{3}}\cos(260^\circ)$$

Final Answer

The classical trigonometric solutions for a third-degree equation reduction matching a 60° projection yield the three distinct real roots: $\mathbf{y_1 = 2\sqrt{-\frac{p}{3}}\cos(20^\circ)}$, $\mathbf{y_2 = 2\sqrt{-\frac{p}{3}}\cos(140^\circ)}$, and $\mathbf{y_3 = 2\sqrt{-\frac{p}{3}}\cos(260^\circ)}$. YouTube · The Learning St...

3

Remarks :

1.. In **Galois ,** *Field Tower multiplicative Property* **,** the Field extension of degree 3 can Never be Build from a chain in degree 2 of the Square root .

The Galois Incorrect Placement on The Field-Object ,

By giving Apriori , One Segment as the **Unit length** , then the ***Algebraic Number field is Quantized*** to The ***Unit length Rational coefficients*** Only which constitutes a Sophistry.

2.. In **The Algebrical Trisection of 60 º known-Angle , Using the Trigonometry ,** The Results from Algebrical monic Polynomial equation , y^3 - 3.y -1 = 0 , **are Correct** as

$\varphi_1 = 2.\sqrt{-[-\frac{3}{3}]}\ .\ \cos 20^\circ$ = $\mathbf{2.\cos 20^\circ}$

$\varphi_2 = 2.\sqrt{-[-\frac{3}{3}]}\ .\ \cos 140^\circ$ = - $\mathbf{2.\cos 160^\circ}$

$\varphi_3 = 2.\sqrt{-[-\frac{3}{3}]}\ .\ \cos 200^\circ$ = - $\mathbf{2.\cos 200^\circ}$

Because ***Algebraic Number field is Quantized*** TO **Euclidean-Numerical-Quantized-Field** .

3.. In **The Algebrical Trisection of 60 º known-Angle , Using Algebraic equations .** The Results from Algebrical monic Polynomial equation , 8.y^3 - 6.y -1 = 0 , **are Correct** as

$\varphi_1 = \cos[\ 1.\pi\ /\ 9\ ]$

$\varphi_2 = \cos[\ 7.\pi\ /\ 9\ ]$

$\varphi_3 = \cos[\ 13.\pi\ /\ 9\ ]$

4.. The **Geometrical** Trisection-Method is Based on an **< Directional-Triangle 30 & 60º >** which Rotates through The centre **O ,** of the Initial circle [O,OA] , and By Drawing the **6-Conjugate Circles** Defines The **Archimedes Kee Point D ≡ H** , which Forms The line – Vector $\mathbf{HA_\varphi}$ and **carries** $\mathbf{A_\varphi}$ **Vertex** at The **Directional-Triangle 60º** Vertex **,** and issues { $\mathbf{O\,\widehat{H}\,A_\varphi}$} **= 3..[** $\mathbf{O\,\widehat{H}\,A_\varphi}$] ………**ο.ε.δ.**

(17)..THE QUANTIZATION OF EUCLIDEAN GEOMETRY IN 4- UNIT MOULDS

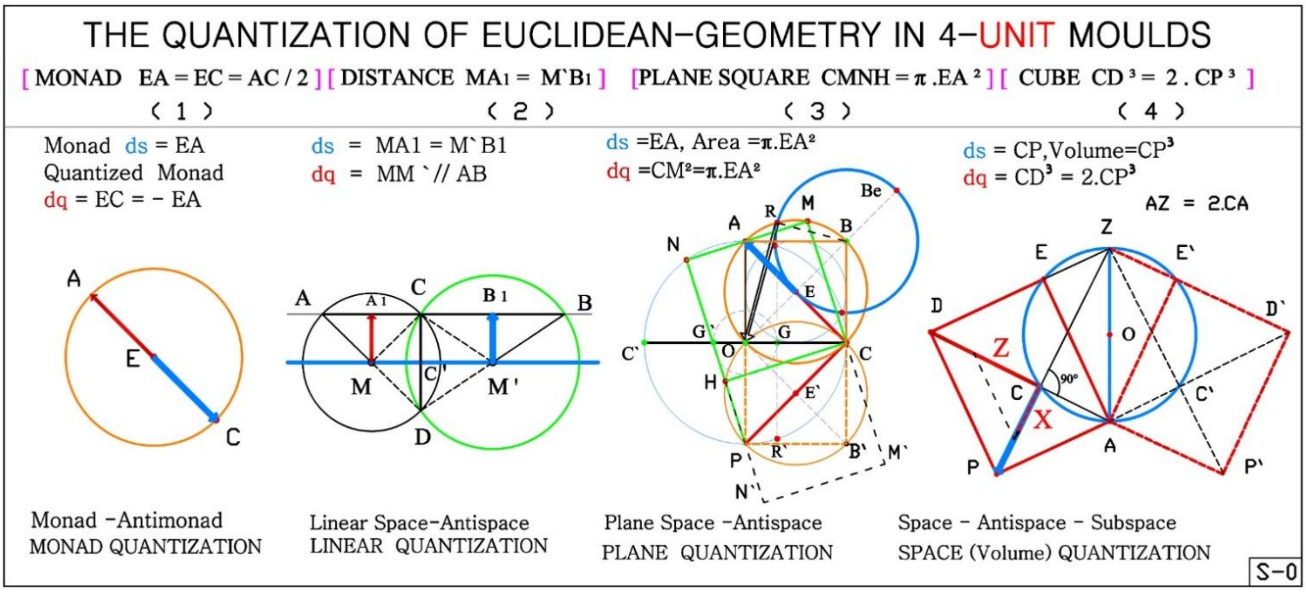


Figure-7-
The UNIT-Monads for → **1)..** Two Poins , **2)..** Three Poins , **3)..** Two Perpendicular-Equal Vectors , **4)..**Two Perpendicular -NOT Equal Vectors . But one should be Double the other .

In.1- , The Point **A** may be at Position E or C , or Anywhere .
The Points A , E , **Define the Straight-line-Segment AE** , and their Symmetrically Opposite Segment **CE** , on where is Drawn the Circle (**E , EA = EC**)

In.2- , The Three Points , C , M , M ` , Not on Line , **Define the Straight-line-Segment MM `** which may be Extended to the Apeiron , ∞ , and the Point C , NOT on line MM`. From Point C , **UNIT-Mould** is the **minimum Line-Segment** that can Be Drawn to the line . It has been Proved [9] and elucidated that , From Point **C** there is ONLY- ONE Parallel the → CA , CB , AB , that can be Deawn to line MM **`.**

In.3- , The Two Perpendicular & Equal Vectors , CA , CP , **Define the Isosceles Right Angled Triangle , CAP ,** on where the **UNIT** , Diameters - circle [E ,EA= EC] , and [E`, E`C=E`P] , are Doubled in Common [O, OC = OA = OP] . **UNIT-Mould** is the **Square Equal to the Unit-Circles** that can Be Formed on Triangle CAP . It has been Proved that the Square **CMNH** , can be found from their common Point **R** , of the Two circles , and on the Three circles the Square **CMNH ≡ π.[CA/2] ² ,** which was Proved to be < ***The Quadrature of The Circle*** > .

In.4- , The Two Perpendicular & Unequal Line-Vectors , **CA** , **CZ** , **Define the Right Angled Triangles , PAD , PZD** on CZ line where the **UNIT-Vector** CA = |ZA/2|
Such that **[CD] ³ = 2.[CP] ³ ,** which is < ***The Dublication of The Cube*** > . **on the Directional Triangle , ZAE ,** where **CA ⊥ CZ ,** and **AZ = 2.AC**
In PHYSICS , for UNIT - MOULD are Used , The Physical Vectors of Forces , The Displacement , The Velocity-Vectors , etc.
In MECHANICS , for UNIT - MOULD are Used , The Physical Vectors of → ***Force*** **- Momentum ,** ***Displacement*** **– Orbit ,** ***The Velocities*** **, Herpolhode , etc.**

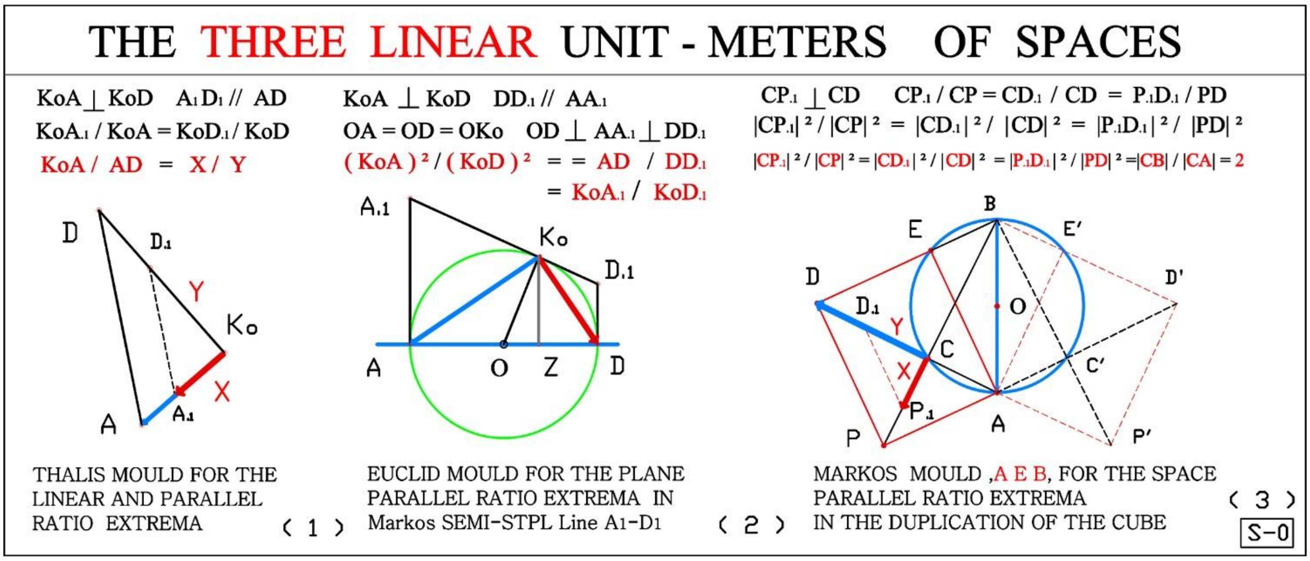


Figure-8-

In.1- , The Thales , Euclid , Markos Mould , for the **Linear – Plane - Space** , Extrema Ratio Meters. Master - meter is the linear Relation of the Ratio , (*continuous analogy*) of the Geometrical magnitudes , of all Spaces and Anti-spaces in any monad .This is so because of the , extrema - ratio - meters .

Saying **master-meters** , we mean That the Ratio of two or three Geometrical magnitudes , is such that they have a linear relation (*continuous analogy*) in all Spaces , *in one in two in three dimensions*, as this happens to the Compatible Coordinate Systems as these are the Rectangular [x,y,z] , [i,j,k] , the Cylindrical and Spherical -Polar . The Position and the distance of Points can be then calculated between the Points , and thus to ***Perform independent Operations*** (***Divergence*** , ***Gradient*** , ***Curl*** , ***Laplacian***) on Points only .This Property issues on material Points and Monads . This is permitted because , Space is Quaternion and is composed of Stationary quantities , the Position $\bar{r}(t)$ and the Kinematic quantities , the velocity → $\bar{v} = dr/dt$ and acceleration → $\bar{a} = d\bar{v}/dt = d^2r/dt^2$.

Kinematic quantities are also the tiny Energy volume caves **(** ***cycloid is length ,λ, the*** **Space** ***of velocity*** $\bar{v}$ *, and* $\bar{\mathbf{a}}$ *consist in gravity`s field* ***the infinite*** **Energy** ***Dipole Tanks*** *in where Energy* is conserved) . In this way all operations on Edge Points are Possible and applicable .

The Linear Ratio , *for Vectors* , begins from the same Common Point K_0 , of the two concurring and Non-Equal , Concentrical and Co-parallel Direction of monads X , Y , or $X = K_0A_1$ - and $Y = K_0D_1$- and Become $K_0A_1 - K_0D_1$.

In.2- , The Markos Mould , for the **Plane - Space** , in SEMI-STPL Mould $A_1\ K_o\ D_1$. The Linear Ratio , *for Plane* , begins from the same Common Point K_0, of the two Non-equal , Concentrical and Co-Perpendicular Direction monads.

The Segment $K_O A \perp K_O D$, $O K_O = OA = OD$ and since $O D_1$, $O A_1$ are Diameters of the two circles then $K_O A_1 = A A_1$, $K_OD_1 = D D_1$, and Linearly (*in One Dimension*) the Ratio of $K_OA / K_OD = A A_1 / D D_1$, in Plane (*in Two Dimensions*) and the Ratio $[K_OA]^2 / [K_OD]^2 = A A_1 / D D_1$, **i.e.** in Euclid`s Plane mould $[K_O A \perp K_O D]$,

The Plane Ratio Square of Segments – K_0 A , K_0 D -- ***is constant and Linear ,***
and for Any Segment C P_1 ***on circle*** **(O,OC)** ***exists another one*** CP ***such that*** ,

$$\rightarrow [K_0 A]^2 / [K_0 D]^2 = A A_1 / D D_1 = \{ K_0 A_1 / K_0 D_1 \} \leftarrow$$

i.e. the Square Analogy of the Sides in Any Rectangle Triangle , A K_0 D , is linear to Extrema Semi-Segments A A_1 , D D_1 or to K_0 A_1 , $K_0 D_1$ monads , or the mapping of the continuous Analog Segment K_0 D to the discrete Segment K_0 A . This Property of Euclidean Geometry allows ,

In the case of Photons , the Linear , Surface and Cubic alternation of the Properties onto the Edge Points , Both Geometrically & Mechanically to follow the Linear Extrema Segments

a=F-8) The Two equal and Perpendicular ***Segments*** **K_0 A = K_0 D** , and **K_0 A ⊥ K_0 D** , form the → **{** The **2-Vectors , 3-Poles** Rotating Squares **Mechanism }**← on which , the **Energy** = The **SPIN** ≡ $\widetilde{\mathbf{B}}$ ≡ The **Herpolhode** of **Photons is Squared** , and thus Photons follow the **Bellow motion** .

b=F-8) The Two Unequal Vectors **BA , BE ,** where **BA = 2.BE** and Angle [A $\widehat{\mathbf{B}}$ E] **= 60º** , form **{** The **2-Vectors , 2-Poles** Rotating Squares **Mechanism }** , On where valids the Dublication on the Unequal Vectors as the Constant < ***Directional Triangle*** >**ABE** , so that **Energy** ≡ **SPIN** ≡ $\widetilde{\mathbf{B}}$ becomes on the **Mechanism of Dublication , PAD - PBD ,** such That the Unit Energy **E** = $\widetilde{\mathbf{B}}.\widetilde{\mathbf{w}}$ is Doubled , and this happens from the Curl-motion of Cubes as → $[CD]^3 = 2.[CP]^3$ ← and it is , ***The Quantum-Cloning of Photons*** .

c=F-2) From Fig-8-(3) , the Two Unequal Vectors **BA , BE** where **BA = 2.BE** and Angle [A $\widehat{\mathbf{B}}$ E] = **60º** , form → {The **2-Vectors , 2-Poles** Rotating Squares **Mechanism }** ← On the < ***Directional Triangle*** > **ABE** .

From Fig-2 & 5 , The **Directional Triangle** $[E_\varphi O A_\varphi]$ is on Diameter [$E_\varphi A_\varphi = 2.O A_\varphi$] of Circle { **O, O A_φ** } , which Vector $\overrightarrow{\mathbf{OA}}_\varphi$, **Rotates through center O** , **Forming** ANY-Angle **{ B $\widehat{\mathrm{O}}$ $A_{\varphi=0-180º}$} .** On this **Triangle-Circle-Mechanism** are Drawn with < ***A Ruler & a Compass*** > **6-Conjugate Circles** on which is Defined at Point **H** , the Angle **{ B $\widehat{\mathrm{H}}$ A_φ } such That** → **Angle { B $\widehat{\mathrm{O}}$ A_φ}= 3. { B $\widehat{\mathrm{H}}$ A_φ }← and is ,**

The Geometrically - Trisection Method

The Energy Triangle $[E_\varphi A_\varphi O]$, to Operate in the same Polar **(wr)²** , Needs a Greater Total Energy of the Fundamental as → $\mathbf{E}_{TOTAL} = \mathbf{Spin\ .\ w} = \bar{\mathbf{S}}.\mathbf{w} = (\mathbf{h} / 2\pi).2\pi.\mathbf{f} = \mathbf{h\ .\ f}$

$= 2. [\frac{4\pi r^2.f1}{3}] . [\frac{n(n+1)}{2}] = [\frac{4\pi r^2.f1}{3}]$ **n.(n+1)** , where for **n = 2 , 4 , 6** , are the **3-Octaves** .

Since at Point **O** , exists only Rotation ≡ $\widetilde{\mathbf{B}} \equiv \bar{\mathbf{c}}.\pi.[O\ A_\varphi]^2$ **,** Then this Quantity of Energy of Energy Cycle and **Antipolar** , is Stored in the **6-Circles** ≡ **|SPDC|** , as a UNIT Quantity

When the Energy Triangle ,{ E_φ A_φ **O** } , Rotates on the Common Center **O** , then the **Motion** ≡ **Energy** is transferred to the 6-Circles of the Common System that form Point **H** and Angle {A_φ $\widehat{\mathrm{H}}$ **O** } , such that Angle **{ B $\widehat{\mathrm{O}}$ A_φ } ≡ 3.{ B $\widehat{\mathrm{H}}$ A_φ}** , and the Quantized

Energy $\mathbf{E}_3 = [\frac{4\pi r^2}{3}].f_1 = [\frac{4\pi r^2}{3}].f_1 + \{ E_{2-1} = E_{2-2} = [\frac{4\pi r^2}{3}].f_1 \} = \mathbf{3.E_1}$ ← **and is ,**

The Mechanical - Trisection Method

The SPDC Trisection Mechanism

(**18**)..**The Herpolhod**e & **Polhode Circles of The Black-Holes** . [115]

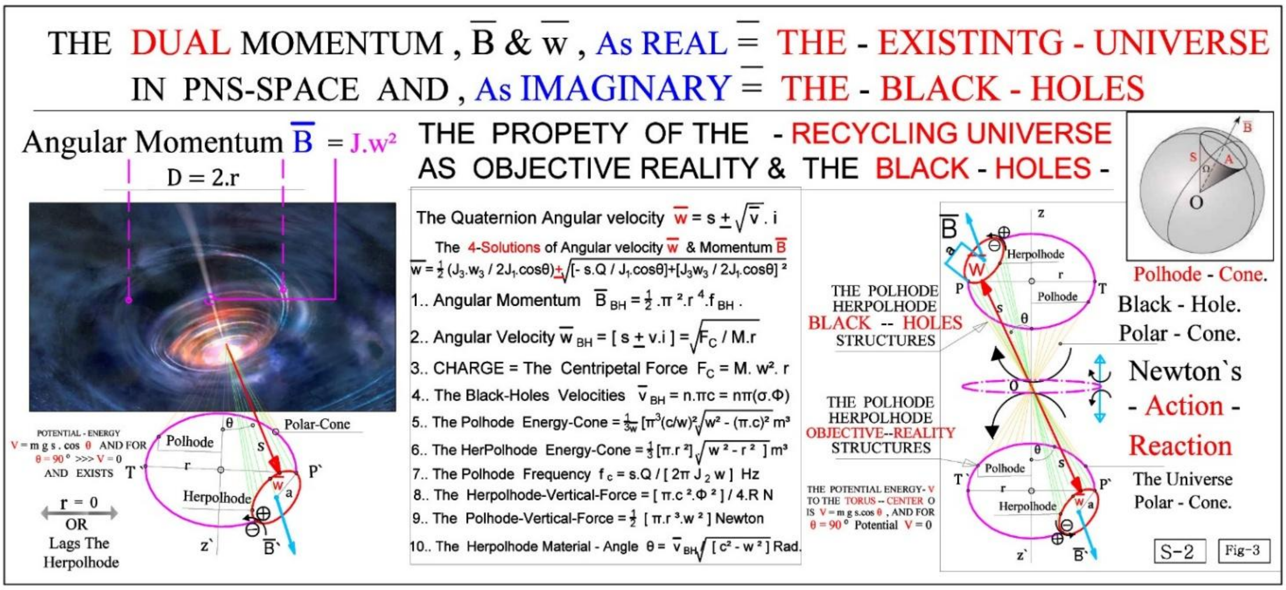


Figure-9- The Total Energy $2.E = \text{Spin} = \check{S} = \vec{w}.\vec{B} = \frac{\vec{c}}{r}.\vec{B} = \vec{c}\,|\frac{\vec{B}}{r}|$, **and** $\vec{c} = \bar{c}_P = |\frac{\overrightarrow{2.r.\check{E}}}{\check{B}}|$

The Velocity of Photon $\bar{c}_P$ is analyzed to Centripetal $\bar{\mathbf{c}}_{\mathbf{K}} \equiv \overrightarrow{RB}$, Tangential $\bar{\mathbf{c}}_{\mathbf{T}} \equiv \overrightarrow{RO}$
Is was shown [70] that the Rotation with Angular-velocity $\overline{w}$ for 45° , to the instaneous material axis OA ≡ [⊕↔⊖] of Rotation where Point A is the , ***Nib*** , of Angular-velocity vector $\overline{\mathbf{w}}$, and Sweeps - Out at OA slant Height of the Central , **POT - Cone** , and with $\overline{w} = \frac{v}{R} = 2\pi f$, { Fig-7- } . From above , The Velocity of Photon $\bar{c}_P$ On the circumference of the Conjugate Circle (B , BE=EC) is Analyzed to the **Centripetal velocity** $\bar{\mathbf{c}}_{\mathbf{K}} \equiv \overrightarrow{RB}$, and to **Tangential** $\bar{\mathbf{c}}_{\mathbf{T}} \equiv \overrightarrow{RO}$.

Conclusions :

a).. In Fig-7- are shown the **Polhode** circle [PT] , **Herpolhode** circle [2a] in Plane E . The Polhode Cone-**POT** is rolling on the Fixed- Herpolhode-Cone **POS** , with a constant Centripetal velocity $\bar{\mathbf{c}}_{\mathbf{T}} \equiv \overrightarrow{RO} \equiv |\bar{v}| = \frac{\sigma}{2}[1+\sqrt{5}] \equiv \boldsymbol{\sigma.\Phi}$, dependent on the Pressure $\boldsymbol{\sigma}$, of the two material constituents [⊕ , ⊖] . Photons motion exists on their **Polhode** and **Herpolhode Conjugates circles** .The Integrated Equations of motion Become Not from the Center of mass O (Fig-4-) , **But** from the center G ` . Since motion of ⊕ constituent Becomes from Stress , **σ** , only , then the constant coordinate System is taken at O , with **z`** axis Perpendicular to the Unit-vector $\bar{\mathbf{k}}$` , [ **z`**⊥ $\bar{\mathbf{k}}$`] which is on OG` axis , (is **x** axis) . **In PNS - Space** , Momentum $\overline{B}$ is created from the Eternal Rotation of the two Opposite constituents [⊕ , ⊖] with the constant Centripetal velocity $|\bar{v}| \equiv \sigma.\Phi$, **where the Curl of the velocity Vector-Field** is with the ON-Axis Torque $\nabla\,\bar{v}$,where $\dot{x} = 0$, $\dot{y} = 0$, $\dot{z} = 0$. **In PNS - Space** , Time exists only as **Period T** from the Rotating constituents [⊕ , ⊖] .

b).. The Theorem of *Hermit-Lindeman* that number , pi , is not Algebraic , is Based on the theory of Constructible numbers and number fields (*on number Analysis*) **and**

Not on the < ***Euclidean Geometrical Origin-Logic on Unit elements Basis*** **> ,**

Plane in Euclidean Geometry is consisted of infinite lines and infinite Points without any Dimension on which **are Quantized** , By connecting any Two-Points by a Straight-line , By finding the Point of Intersection of Two-lines , By Drawing a Circle with a given Radius about a Point , By finding the Points of Intersection of a Circle with another Circle or with a line . The above Quantization of Points is the **Euclidean Number ≡ Quantized Field** .

c).. **In Algebraic Number field** , in Plane x , y , the only one Segment is given at the outset , and may This taken as the Unit length which fixes the Point x=1 , y = 0 . This issues for any Arbitrary Points x , y with Rational coefficients a , b , c **, ..**
By giving Apriori , One Segment as the Unit length then , the ***Algebraic Number field is Quantized* ,** to the Rational coefficients only .

d).. The mathematical reasoning (*the Method*) is Based on the Restrictions imposed to seek the Solution < **i.e.** ***with a Ruler and a Compass*** **And** ***Not Differently*** > .
By extending Euclid logic of Units on the Unit circle ***to unknown and now Proved Geometrical Unit elements* , thus the settled age-Old question for the Unsolved Problems is Now Approached and is Solved the continuously stood Problem .**
All Mathematical interpretation and the relative Philosophical reflections Based on the Theory of the Non -Solvability must Properly Revised .

(19)..The Markos 3-Circles Theorem – On Any Diameter - OB -

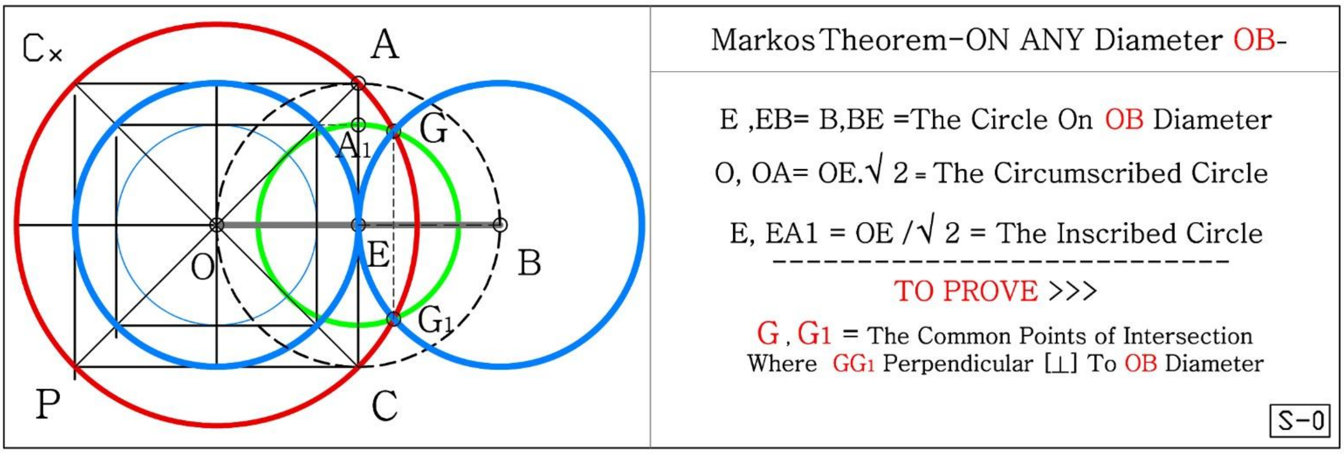


Figure - 10 – The Theorem :

On Each Diameter , **OEB ,** of any circle (**E , E B = EO**) we Draw,

1.. ***The Circumscribed circle*** (O , OA = OE .√2) *at the Edge-Point* **O** *as center ,*

2.. ***The Inscribed circle*** (E ,OE/ √ 2 = OA/ 2 = EG) *at the Mid-Point* **E** *as center ,*

3.. ***The Circle*** (B , BE = B , B_e) = (E , EO) *at the Edge Point* B *as center ,*

THEN the Three circles ***Pass through the common Points*** G , G_1 , *and the Symmetrical to* OB *Point* G_1 *forming an axis Perpendicular to* OB , which has the Properties of the circles where *the tangent from Point B* to the circle (O , OA = OC) is constant and equal to $2.EB^2$ and has to do with , **the Dublication of the Cube** → *The Resemblance Ratio equal to 2* ← .
Circle is squared on this Geometric Procedure By Rotation , Expantion and Translation.

Συμπεράσματα :

1).. Δεδομένου ότι η Συχνότητα Στο Υλικό Σημείο Υπάρχει από την Ισορροπία του ,

Δηλαδή → Οι Δύο – Αντίθετες Περιστροφικές – Ενέργειες = ± $\overline{\mathbf{B}}$, ή η Σχέση Σπιν ,

Η οποία είναι→ $\overline{\mathbf{B}}\,\overline{\mathbf{w}} = L = \frac{1}{2}J_1 w_1{}^2 + \frac{1}{2}J_2 w_2{}^2 + \frac{1}{2}J_3 w_3{}^2, \overline{B} \equiv \pm$ **Spin** $\overline{\mathbf{S}}$, **καθώς και**

$\overline{\mathbf{B}} = \frac{J.w}{2} = \frac{\pi r^4}{4}[2\pi f] = \frac{\pi^2 r^4}{2}[\,f\,] \equiv [$ **Σταθερά *f** $] \equiv [\frac{2L}{\overline{w}}] = \frac{2L}{2\pi f} = [\frac{L}{\pi}].[\frac{1}{f}] = \frac{\mathbf{4r.L}}{(\mathbf{1+\sqrt{5}})\boldsymbol{\sigma}}$, **ή**

$\overline{\mathbf{B}} = \frac{4r.L}{(1+\sqrt{5}\,).\sigma} = \frac{2r.[\,L = hf\,]}{(1+\sqrt{5}\,).\sigma} = \frac{hf}{2\pi f} = [\frac{h}{2\pi}] \equiv$ **SPIN** , **όπου L = hf = Σταθερά , και όπου**

η Συχνότητα Σχετιζεται με την **Φ** όπως , → $\mathbf{f_n} = [\frac{2}{\pi^2 r^4}].\overline{B} \equiv [\frac{1+\sqrt{5}}{2}]\frac{\boldsymbol{\sigma}}{\mathbf{2\pi r}} \equiv [\frac{\Phi\,\sigma}{2\pi\,r}] \leftarrow .(6a)$

2).. Το Ευκλείδειο Αριθμητικά Κβαντισμένο (Κοκκόδες) Πεδίο

& Το Αλγεβρικά Αριθμητικό Πεδίο του Galois

Το Θεώρημα του ***Hermit-Lindeman*** ότι ο Αριθμός π Δεν είναι Αλγεβρικός , βασίζεται στη θεωρία των **Κατασκευάσιμων Αριθμών** και των **Αριθμητικών Πεδίων** , (Δηλαδή στην **Αριθμητική Ανάλυση**) και όχι στην < Ευκλείδεια Γεωμετρική Λογική πού είναι η Βάση όλων των Στοιχείων >, Όπως τό Επίπεδο τής Ευκλείδειας Γεωμετρίας αποτελείται από άπειρες Ευθείες και άπειρα Σημεία χωρίς καμία Μονάδα Διάστασης επί των οποίων Κβαντίζονται , (**α**)..Η Σύνδεση Οποιονδήποτε Δύο Σημείων με ένα Ευθύγραμμο Τμήμα , (**β**)..Η Εύρεση τού Σημείου Τομής Οποιωνδήποτε Δύο Ευθειών, (**γ**).. Ο Σχεδιασμός Οποιοδήποτε Κύκλου με Δεδομένη Ακτίνα από Οποιοδήποτε Σημείο , (**δ**).. Η Εύρεση των Σημείων Τομής ενός Κύκλου με ένα άλλο Κύκλο , ή και με Μια Ευθεία **.**

Η ανωτέρω Γεωμετρική Κβαντοποίηση των Σημείων είναι **Το Ευκλείδειο Αριθμητικά Κβαντισμένο (Κοκκόδες) Πεδίο** .

Το Πεδίο Αλγεβρικών Αριθμών τού **Galois** , σε ένα Επίπεδο x, y, **Δίνεται Εξαρχής** από ένα Μοναδιαίο Μήκος Τμήμα , που λαμβάνεται ως καθορισμός του Σημείου x = 1 , y = 0 . Αυτό Ισχύει και για Οποιοδήποτε Τυχαίο Σύνολο Σημείων x , y , με Ρητούς Συντελεστές a , b , c **,**

Η Λανθασμένη Τοποθέτηση στο Πεδίο Αλγεβρικών Αριθμών Galois → → →

Καθορίζοντας **Apriori** , ένα Τμήμα του ως Μονάδα Μήκους ,τότε το Πεδίο των Αλγεβρικών Αριθμών Κβαντοποιείται , **Μόνο σε Ρητούς Συντελεστές Μονάδας Μήκους .** {**Αυτό είναι** ακριβώς πού Συμβαίνει και στα Φύλλα - της **World** , με τα – **Όρια Απόστασης Γραμμών – που των οποίων Ελέγχεται το εύρος** της Γραμμής }. ← ← ←

Στην **Ευκλείδεια Γεωμετρία** , η Μαθηματική Συλλογιστική (Η Μέθοδος) βασίζεται στους Περιορισμούς που Επιβάλλονται για την Αναζήτηση της Λύσης , και πού είναι

< Με Χάρακα και Διαβήτη και ΟΧΙ Διαφορετικά > .

Επεκτείνοντας την **Ευκλείδεια Λογική των Μονάδων** Στον **Μοναδιαίο-Κύκλο** και Στα Άγνωστα μέχρι Τώρα αλλά Γεωμετρικά-Αποδεδειγμένα Μοναδιαία Στοιχεία , έτσι το

Συνεχές Ερώτημα Στα **Άλυτα Ελληνικά-Προβλήματα τής Αρχαιότητας** προσεγγίζεται και Λύνεται . Η Μαθηματική Ερμηνεία και οι Φιλοσοφικές Σχετικές Σκέψεις Βασισμένες **Στην Υπάρχουσα Θεωρία της Μη Επιλυσημότητας** των Αρχαίων Ελληνικών Άλυτων Προβλημάτων πρέπει **Ανάλογα Να Αναθεωρηθούν Σωστά..**

3).. Δεδομένου ότι η Παρούσα Μέθοδος Τριχοτόμησης βασίζεται σε ένα Κατευθυντήριο Τρίγωνο – [$E_\varphi O A_\varphi$] Διαμέτρου [$E_\varphi A_\varphi = 2.O A_\varphi$] κύκλου {**O, O** $\mathbf{A_\varphi}$} και του οποίου το Διάνυσμα $\overrightarrow{\mathbf{OA}_\varphi}$, περιστρέφεται Στό κέντρου O , Σχηματίζοντας έτσι ΟΠΟΙΑΔΗΠΟΤΕ Γωνία $\{\mathbf{B \widehat{O} A}_{\varphi=0-180^o}\}$ Από 0^o έως 180^o . Σε αυτόν τον **Μηχανισμό Τριγώνου-Κύκλου** , Σχεδιάζονται με < **Χάρακα και Διαβήτη** > οι 6-Συζυγείς Κύκλοι Ακτίνας $\overrightarrow{\mathbf{OA}_\varphi}$, πάνω στους οποίους Καθορίζεται Το Σημείο **H** , και η Γωνία {$\mathbf{B \widehat{H} A_\varphi}$} τέτοια ώστε η Γωνία $\Rightarrow$ **{** $\mathbf{B \widehat{O} A_\varphi}$**} = 3.**{$\mathbf{B \widehat{H} A_\varphi}$} . Το Σημείο **H** , είναι αυτό που Υποδείχθηκε με τη **Μέθοδο Τριχοτόμησης του Αρχιμήδη .** ώστε Επί τού **Μηχανισμού των 6-Συζυγών** Κύκλων , η Κβαντισμένη Ενέργεια των Φωτονίων Να είναι $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1 = \mathbf{3.E_1}$ **,**

4).. Όταν το Κατευθυντήριο Τρίγωνο – [$E_\varphi O A_\varphi$] Διαμέτρου [$E_\varphi A_\varphi = 2.O A_\varphi$] του Αρχικού Κύκλου {**O, O** $\mathbf{A_\varphi}$}, και το Διάνυσμα $\overrightarrow{\mathbf{OA}_\varphi}$, Να Τοποθετείται Σταθερά σε ένα Άλλο Σταθερό διάνυσμα $\overrightarrow{\mathbf{OR}}$ **,** Τότε [**Ο Μηχανισμός Περιστροφής 2-Διανυσμάτων 3-Πόλων**] είναι στο Σταθερό Σημείο **O** όπου το Διανυσμα $\overrightarrow{\mathbf{OA}_\varphi}$ είναι Ακίνητο στη γωνία $\{\mathbf{B \widehat{O} A_\varphi}\}$, Σε αυτόν τον Νέο Μηχανισμό το Κατευθυντήριο Τρίγωνο [$E_\varphi O A_\varphi$] Σχηματίζει τα Νέα Τρίγωνα , PAD , PBE_φ **,** όπου $[CD]^3 = 2.[CE_\varphi]^3$.

5).. Όταν το Τρίγωνο Κατεύθυνσης – [$E_\varphi O A_\varphi$] , Διαμέτρου [$E_\varphi A_\varphi = 2.O A_\varphi$] του Αρχικού Κύκλου {**O, O** $\mathbf{A_\varphi}$}, και το Διάνυσμα $\overrightarrow{\mathbf{OA}_\varphi}$, τοποθετείται Σταθερά σε ένα Άλλο Σταθερό Διάνυσμα $\overrightarrow{\mathbf{OR}}$ **,** Τότε το Εμβαδόν του Κύκλου Ισούται με το Τετράγωνο **{ CMNH }**

Όπως η Σχέση → {**O, O** $\mathbf{A_\varphi}$**} = π [O** $\mathbf{A_\varphi}$**]² = { CMNH }** ←

6).. Το ‘Αρθρο-124 - αποτελεί Συνέχεια του 123=ΔΙΑΝΥΣΜΑΤΑ και αφορά την Αυστηρά Απλοποιημένη Αυστηρή Απόδειξη του προβλήματος **< τού Τετραγωνισμό του κύκλου χρησιμοποιώντας Χάρακα και Διαβήτη >** όπως τέθηκε για πρώτη φορά από τους Αρχαίους Έλληνες. Τα Φωτόνια Τετραγωνίζουν τον Κύκλο Ενέργειάς τους που είναι ≡ **Η Περιστροφή της Αντιπολικής των** , ώστε να ισούται με ένα **Τετράγωνο Μονδιαίας-Ενέργειας** , το οποίο τετράγωνο προωθούν, είτε ως η ταχύτητα του Φωτονίου που είναι το **Ηλεκτρικό τους πεδίο** , είτε το Αποθηκεύουν κάθετα στην κίνηση σε μια ίση περιοχή , ≡ το **Αντιτετράγωνο** που είναι το **Μαγνητικό τους πεδίο** . Η προώθηση γίνεται στο Σημείο **G`** υπό γωνία 45^o λόγω τής Διπλής Διάθλασης τού Διανύσματος τής ταχύτητας $\mathbf{\bar{c}_T} \equiv \overrightarrow{\mathbf{RO}}$, και έτσι η κίνηση **Φυσητήρα** Να είναι η Στρεπτική τους Κίνηση.

7).. Οι **Ακτίνες τού Φωτός** και κατά συνέπεια τα **Φωτόνια** ταξιδεύουν σε Ευθείες γραμμές , Δηλαδή ακολουθούν την **Ευκλείδεια Γεωμετρία και Καμία άλλη** .

.**Ο Χρόνος** είναι το Μέτρο, για μέτρηση των αλλαγών στην Ενέργεια , και ΟΧΙ άλλη Ουσία.

Η Ουσία του Σύμπαντος είναι → **Χώρος** ≡ ([⊕←**r**→⊖]) **, Ενέργεια** ≡ ([⊕ **σ** ⊖]) ←

Η Βαρυτική δύναμη **G** , προκαλεί την κάμψη των Φωτεινών Ακτίνων και ΟΧΙ τη **Στρέβλωση του Χωροχρόνου** ,Έννοια πού Δεν Υφίσταται και πού ποτέ Διευκρινίστηκε . Επειδή η Επίλυση των Προβλημάτων τού Τετραγωνισμού του Κύκλου τού Διπλασιασμού τού Κύβου της Τριχοτόμησης οιασδήποτε Γωνίας Έγινε με , **Χάρακα και Διαβήτη Μόνο** , Ακολουθώντας τη Δέσμευση πού ετέθη από τούς Αρχαίους Έλληνες , **Αποτελεί Ανατροπή** Όλων των Υπαρχουσών Θεωριών στη **Γεωμετρία** , τη **Φυσική** και τη **Φιλοσοφία** .

Η ΜΕΘΟΔΟΣ ΤΟΥ **ΑΡΧΙΜΗΔΗ** ΓΙΑ ΤΡΙΧΟΤΟΜΗΣΗ ΤΥΧΟΥΣΑΣ ΓΩΝΙΑΣ **< ΑΟΒ**

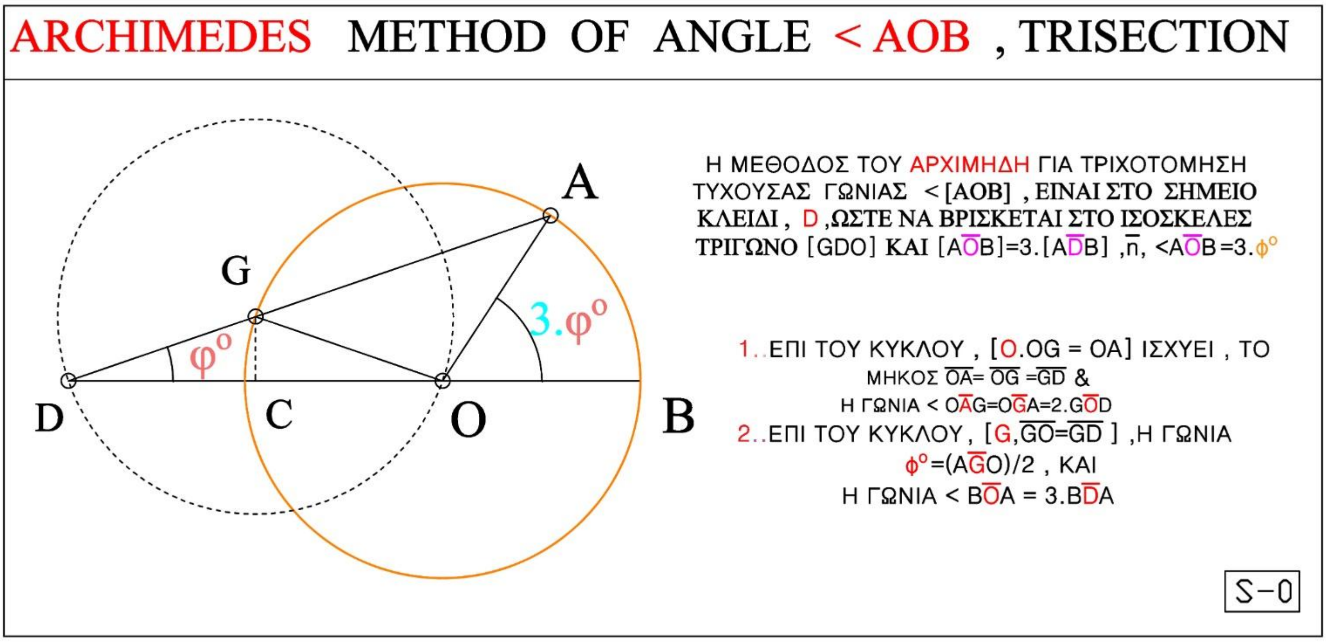


Figure - 11 – Η Μέθοδος τού Αρχιμήδη για Τριχοτόμηση της Γωνίας < AOB .

Η **ΝΕΑ ΜΕΘΟΔΟΣ ΤΡΙΧΟΤΟΜΗΣΗΣ ΤΥΧΟΥΣΑΣ ΓΩΝΙΑΣ < ΑΟΒ … Σχ-12-**

ΔΕΙΤΕ (11) Τα Βήματα Κατασκευής τής Γωνίας < {$\mathbf{E_\varphi \widetilde{O} B}$} και **Τού Μηχανισμού Του Κατευθυντήριο Τρίγωνο** ,[$\mathbf{E_\varphi A_\varphi O}$] **, με Κοινή Πλευρά την Ακτίνα** ,[$\mathbf{O A_\varphi}$]**.** **Το Κατευθυντήριο Τρίγωνο** τής Γωνίας είναι ο πλέον Σταθερός Γεωμετρικός Σχηματισμός στο Σύστημα των **6-Κύκλων** , Διότι είναι Όμοιο τού Τριγώνου , $\mathbf{F A_1 C_1}$, Από το Κοινό **P** το οποίο Τέμνει την Ευθεία Γραμμή ΟΒ του Τμήματος στο Σημείο **H** , η ευθεία $\mathbf{H A_\varphi}$, Σχηματίζει τη γωνία $\mathbf{B \widetilde{H} A_\varphi}$ **,** τέτοια ώστε να είναι → Γωνία { $\mathbf{B \widetilde{O} A_\varphi}$ } ≡ **3.** { $\mathbf{B \widetilde{H} A_\varphi}$ }

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Η Παραμετρική Μετατροπή της ΣΤΡΟΦΟΡΜΗΣ προς τίς ΚΑΤΩ Οκτάβες .

Η **Κβαντοποιημένη** Ενέργεια του Φωτονίου , **Το SPIN** ≡ $\widetilde{\mathbf{B}}$ ισούται με $\mathbf{E_3}$ **=** $[\frac{4\pi r^2}{3}].f_1$.

Η Συνολική Ενέργεια ≡ Spin $\tilde{\mathbf{S}} \equiv \widetilde{\mathbf{B}} \equiv \bar{\mathbf{c}}$ **.π[Ο** $\mathbf{A_\varphi}$**]²**, Στις **3 Οκτάβες n = 2 , 4 , 6** , Μετατρέπεται προς τίς ***Κάτω Συχνότητες*** όπως ***η Θεμελιώδης*** , επί των **6**-Συζευγμένων Κύκλων πού Ορίζουν το Σημείο **H ≡ D** με αυτό τού Αρχιμήδη ώστε η Γωνία { $\mathbf{B \widetilde{O} A_\varphi}$} = **3.**{$\mathbf{B \widetilde{H} A_\varphi}$}, η δε Ενέργεια $\mathbf{E_1}$ τής **Θεμελιώδους ,** Να είναι **3.**$\mathbf{E_1}$ **=** $\mathbf{E_3} = [\frac{4\pi r^2}{3}].f_1$.

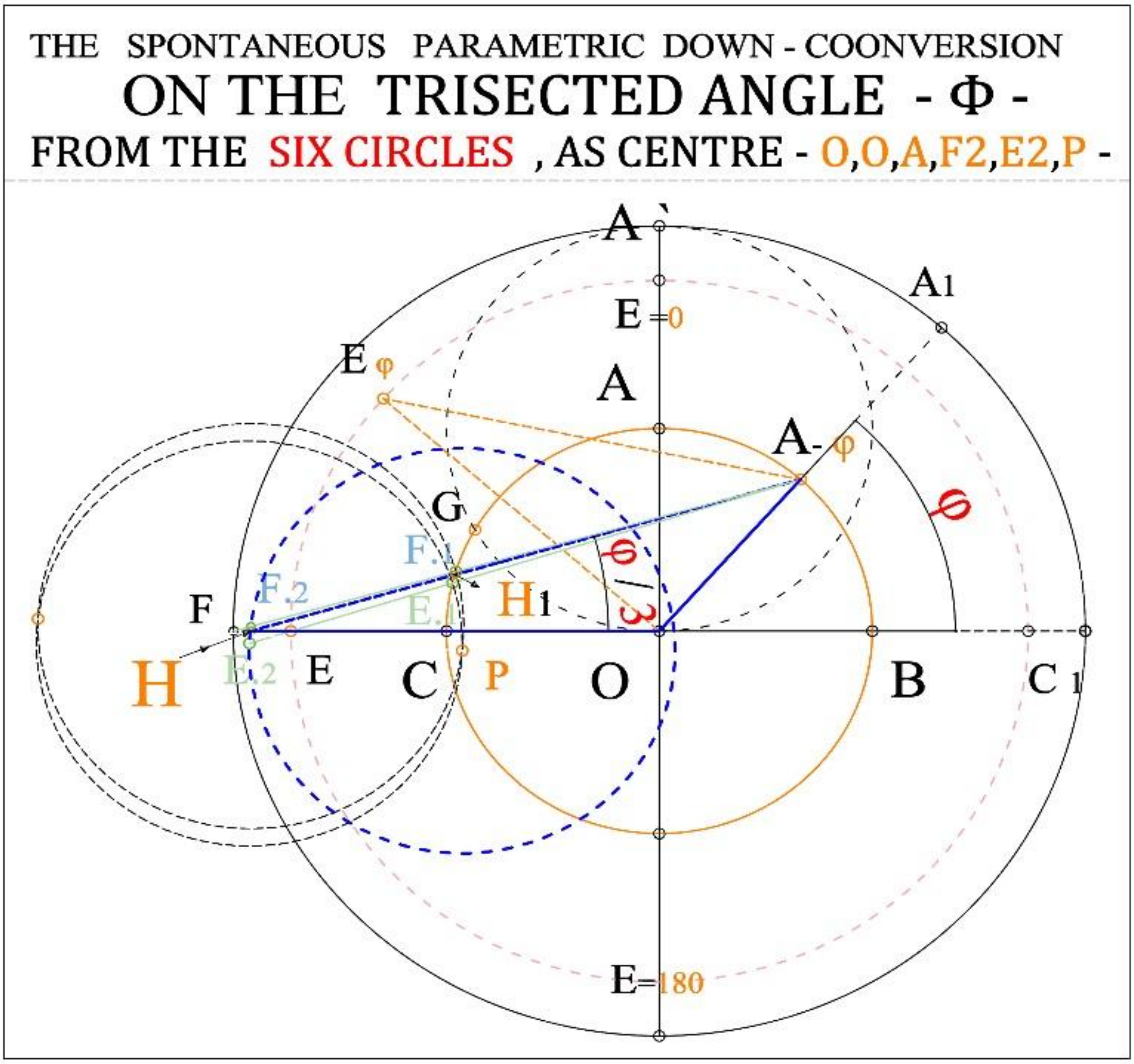

Figure - 12 – Η Παραμετρική μετατροπή της Στροφορμής προς τίς Κάτω Οκτάβες .

Το Γιατί όμως **E_3 και όχι E_1** , είναι στο ότι **Ο Τριγωνικός-Μηχανισμός [$E_\varphi A_\varphi$O], για Να Λειτουργήσει στην ίδια Πολική (wr)²** , **Χρειάζεται Μεγαλύτερη Συνολική Ενέργεια της Θεμελιώδους όπως→ E_{TOTAL}= Spin . w = $\bar{S}$.w = (h / 2π).2π.f = h . f**

2. [$\frac{4\pi r^2.f1}{3}$] . [$\frac{n(n+1)}{2}$] = [$\frac{4\pi r^2.f1}{3}$] n.(n+1) , όπου για **n** = 2 , 4 , 6 , **είναι οι 3-Οκτάβες** .

Όταν το Ενεργειακό Τρίγωνο , **[E_φ A_φ O] ,** Περιστρέφεται επί τού Κοινού Κέντρου **O** , τότε η **Κίνηση ≡ Ενέργεια** μεταφέρεται στους 6-Κύκλους τού Κοινού Συστήματος πού σχηματίζουν την γωνία { **A_φ $\widehat{\widehat{H}}$ O** } ώστε η Γωνία **{B $\widehat{\widehat{O}}$ A_φ} ≡ 3. { B $\widehat{\widehat{H}}$ A_φ}**

και η **Κβαντοποιημένη** Ενέργεια **E_3= [$\frac{4\pi r^2}{3}$].f_1= [$\frac{4\pi r^2}{3}$].f_1+ { E_{2-1}= E_{2-2}= [$\frac{4\pi r^2}{3}$].f_1} = 3.E_1**

Και **Συνεπώς η Ενεργειακή Σχέση μεταξύ Γωνιών -Σάρωσης και Συχνοτήτων**

Είναι→ [B $\widehat{\widehat{H}}$ A_φ] + {[O $\widetilde{A_\varphi}$ H] = 2.[B $\widehat{\widehat{H}}$ A_φ]} **&** $f_p = \{\frac{\sigma.\Phi}{2\pi r}\} = \{\frac{\overline{\overline{B_n}}}{\pi^2.[OA_\varphi]^4}\}$

ΟΤΑΝ Από τίς [n_3] , [n_6] **Ακέραιες Οκτάβες** το Διάνυσμα , $\overrightarrow{\mathbf{O\,A_{\varphi=3}}}$ ή το $\overrightarrow{\mathbf{O\,A_{\varphi=6}}}$,
ΤΟΠΟΘΕΤΗΘΕΙ Επί τού Μηχανισμού των **6**-Ενεργειακών Κύκλων , τότε
ΟΡΙΖΕΤΑΙ το Σημείο Η **και το Διάνυσμα** $\overleftrightarrow{E_3}$ ή $\overleftrightarrow{E_6}$ **, στο Κέντρο Ο ,**
Για τα Διανύσματα $\overrightarrow{\mathbf{O\,A_{\varphi=3}}}$, $\overrightarrow{\mathbf{O\,A_{\varphi=6}}}$, **ισχύει** → $\overleftrightarrow{E_3} = 3.\overleftrightarrow{E_1}$ & $\overleftrightarrow{E_6} = 3.\overleftrightarrow{E_2}$ ← που
Είναι → ⇢ → Η Ακέραια Κβάντωση των Φωτονίων ← ⇠← ή το Ίδιο
Η Παραμετρική Μετατροπή της Στροφορμής προς τίς Κάτω Οκτάβες ..ο.ε.δ.

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Article [124] is Dedicated to the **National Technical University of Athens** , NTUA , from where I Graduated and Acquired the Path Knowledge of the Truths of Nature..

Το Άρθρο [124] είναι Αφιερωμένο στο Εθνικό Μετσόβιο Πολυτεχνείο (ΕΜΠ) , από όπου Αποφοίτησα και Απέκτησα την Ατραπό της Γνώσης των Αληθειών της Φύσης.

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