## NUCLEAR FORMULA GEOGRAPHY (PROTIUM EXPLORED)

Monday, October 17, 2022.02:02


## PROTIUM FORMULA GEOGRAPHY

ALEXANDER

| Name | Description | Caption |
| :--- | :--- | :--- |
| Curve a | $\operatorname{Curve}(0.5 \cos (\mathrm{t}), 0.5 \sin (\mathrm{t}), \mathrm{t},-5,5)$ |  |
| Text text8 |  |  |
|  |  |  |
| Curve g | Curve( $\left.\mathrm{t}, \mathrm{t}^{\mathrm{o}} /-2+1 / 2, \mathrm{t},-0.25,1\right)$ |  |
| Curve c | Curve(sqrt(1), $\mathrm{t}, \mathrm{t},-0.1,1)$ |  |


| Point A |  |  |
| :---: | :---: | :---: |
| Point B |  |  |
| Curve f | Curve( $\left.\mathrm{t}, \mathrm{t}^{2} /-2+1 / 2, \mathrm{t}, 0.5,1\right)$ |  |
| Curve b | Curve( $\mathrm{t}, \mathrm{t}^{2} /-2+0.5, \mathrm{t},-0.2,0.5$ ) |  |
| Curve j | Curve(t, $\left.\mathrm{t}^{0} /-2+1 / 2, \mathrm{t},-1,1\right)$ |  |
| Curve d | Curve(t, $\left.\mathrm{t}^{1} /-2+1 / 2, \mathrm{t},-2,2\right)$ |  |
| Curve k | Curve ( $0.25 \cos (\mathrm{t}), 0.25 \sin (\mathrm{t})+0.75, \mathrm{t},-5,5)$ |  |
| Curve n | Curve( $0.25 \cos (\mathrm{t}), 0.25 \sin (\mathrm{t}), \mathrm{t},-5,5)$ |  |
| Curve $\mathrm{o}_{1}$ | Curve(1/ (4sqrt(2)) $\cos (t), 1 /(4 \mathrm{sqrt}(2)) \sin (\mathrm{t}), \mathrm{t},-5,5)$ |  |
| Curve q | Curve(15/8, t, t, 1.5, 2.5) |  |
| Curve r | Curve(t, $17 / 8, \mathrm{t}, 7 / 4,9 / 4$ ) |  |
| Curve s | Curve(t, $-0.5 \mathrm{t}+0.75, \mathrm{t}, 0,1.5$ ) |  |
| Curve 1 | Curve(t, 0.75, t, -0.5, 0.5) |  |
| Curve i | Curve( $\mathrm{t}, \mathrm{t}^{1} /-2+1 / 2, \mathrm{t},-0.5,1$ ) |  |
| Curve u | Curve(t, $-0.5 \mathrm{t}+1, \mathrm{t}, 0.5,2)$ |  |
| Curve v | Curve(t, sqrt( $1+\mathrm{t}^{2}$ ), $\left.\mathrm{t},-0.5,2\right)$ |  |
| Curve $\mathrm{q}_{2}$ | Curve( $1.88, \mathrm{t}, \mathrm{t},-0.1,0.1$ ) |  |
| Curve o | $\left(\frac{\cos (t)}{4 \sqrt[2]{2}}+\frac{15}{8}, \frac{\sin (t)}{4 \sqrt[2]{2}}+\frac{17}{8}, t,-5,5\right)$ |  |
| Curve e | Curve(t, $\left.\mathrm{t}^{2} /-2+1 / 2, \mathrm{t},-1,1\right)$ |  |
| Curve m | Curve( $\mathrm{t}-0.25, \mathrm{t}, \mathrm{t},-0.4,2.25$ ) |  |
| Curve t | Curve(t, $\left.\mathrm{t}^{2} /-4+1, \mathrm{t},-1,2\right)$ |  |
| Curve p | Curve( $1 \cos (\mathrm{t}), 1 \sin (\mathrm{t}), \mathrm{t},-0.55,2.8)$ |  |
| Curve h | Curve( $\left.\mathrm{t}, \mathrm{t}^{2} /-1+1, \mathrm{t},-1,1\right)$ |  |

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Figure 1: index(0) solution curves. $\left(c=1^{\frac{1}{0}}, d=2^{\frac{1}{0}}, e=3^{\frac{1}{0}}\right)$
Index(0) solution curves
All index(0) solution curves for square space (radicand integers) =:

$$
\left(\text { domain }=0, \text { range }=\left(\text { integer }-\frac{1}{2}\right)\right)
$$

## index(0) solution curve

ALEXANDER

| Name | Description | Caption |
| :--- | :--- | :--- |
| Curve a | Curve $(\cos (\mathrm{t}), \sin (\mathrm{t}), \mathrm{t},-5,5)$ | Independent curve |
| Curve b | Curve $\left(\mathrm{t}, \mathrm{t}^{2} /-4+1, \mathrm{t},-0.4,2.1\right)$ | Dependent curve |
| Curve c | Curve $\left(\mathrm{t}, \mathrm{t}^{0} /-2+0.5, \mathrm{t}, 0,1\right)$ | Index $(0)$, integer $(1)$ |
| Curve d | Curve $\left(\mathrm{t}, \mathrm{t}^{\mathrm{o}} /-2+1, \mathrm{t}, 0,2\right)$ | Index $(0)$, integer $(2)$ |
| Curve e | Curve $\left(\mathrm{t}, \mathrm{t}^{0} /-2+3 / 2, \mathrm{t}, 0,3\right)$ | Index $(0)$, integer $(3)$ |

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Index solution curves of curved space working Sir Isaac Newton's displacement radii(1, 2, 3).


Figure 2: figure(1) continuation with Sir Isaac Newton's displacement integers (1, 2, 3).

## Intentions.

The above construction is an arithmetic regression of Sir Isaac Newton's 3units displacement space with respect to spin. Let it be a map of a Gravity field fall from displacement space(3) to ground level surface acceleration curve. Assume ( $M_{2}$ ) fall path can be captured by $\left(M_{1}\right)$ potential existing on displacement integer (1\&2).

We have three domain integers as defined by linear registration curves $(c, d, e)$ of displacement integers $(1,2,3)$ on the domain of $\left(M_{1}\right)$.

Let the assembly of system curves represented by (---.) be those solution curved associated with registered displacement space integer(3) via index(1) solution curve (e)

Let the assembly of system curves represented by (solid (-)) be those solution curved associated with registered displacement space integer(2) via index(1) solution curve (d)

Let the assembly of system curves represented by green(- -) be those solution curved associated with displacement integer(1). Surface acceleration phenomena of the collective. Registered with central force spin via index(1) solution curve (c)

## This writing is from Central Force Material sect. 3

Index(0) of any radicand integer is a range limit definition of CSDA rest energy. Performance of index(0) solution curve(s) on a radicand integer of our number line domain decrease range ordinate level by $\left(\frac{1}{2}\right)$ unit(s) of spin space. That is, til we reference the border integer keeping separate our infinities; (1). Index (0) of radicand $(n \neq 1)$ has no domain. $(\sqrt[0]{1})$ has no range.

Discovery curve ( $\frac{3}{2}$ ) and displacement integer(3):

$$
\text { 1. }\left(\frac{t^{0}}{-2}+\frac{(3)}{2} / \cdot \operatorname{disp} \rightarrow \sqrt{3} \xrightarrow{\text { yields }}(1)\right)
$$

Discovery curve ( $\frac{2}{2}$ ) and displacement integer(2):
2. $\left(\frac{t^{0}}{-2}+\frac{(2)}{2} / \cdot \operatorname{disp} \rightarrow \sqrt{2} \xrightarrow{\text { yields }} \frac{1}{2}\right)$

Discovery curve ( $\frac{1}{2}$ ) and displacement integer(1):
3. $\left(\frac{t^{0}}{-2}+\frac{(1)}{2} / . \operatorname{disp} \rightarrow \sqrt{1} \xrightarrow{\text { yields }} 0\right)$

Index(0) solution curves of Eventdisp(3) is conducted on primary surface acceleration curves discovery(a). Event (1) and (2) have straight linear parametrics with $1 / 2$ unit space loss of range only, still no domain.

Event(1) has no range and is concurrent with domain (central force system number line) at rest. No work to be done. No surface acceleration queries and no orbit of an ( $M_{2}$ ).

My Protium model has a pre considered thought line (WVTC2020) for electromagnetic bond of two like elements.


Figure 3: Protium electron cloud, where are we? Macro Space? Micro Space?

Gonna' take a wild leap here. Certain population parts of our world do not like wild jumps without DNA, fingerprints, and any forensics indicating a true happening. For me, Happenings in God's House are Espiritu, His Hands at work.

Range happenings (time spent with, heat, cold?) have become absorbed by the Central Force Domain. I suspect we have transitioned across space into micro infinity Nuclear Domain(s).

S\&T2 time is Big Space perceivable motion. We can see it. S\&T3 Quantum motion time is Third Party dependent on Thermodynamics, Heat and Chaos Energy (heat gone wild). A very violent place. Need change curves from S\&T2 perceptions and hyper-jump into S\&T(3) perception of State. And suffer the consequences of leaving room temperature observables.

Here, electron clouds are independent, based on Z\#. Z\#1 is Protium. after suffering an index(0) solution curve on radicand displacement(1), Curve(a) fig(3),
might be the nuclear discovery curve of Protium, (1) proton. Obviously only half the element.

Let the red curve be our electron cloud having radius (1). Right on the border integer keeping separate our infinities. Could go either infinity space except for the fact that the essence of protium most assuredly belongs with micro infinity.

Nuclear Parametrics of Mendeleev's elements will aquire new geographical ID terms when we move on to S\&T3.

A very short synopsis of nuclear Protium happenings when crossover'd into Quantum space.

Let Protium electron cloud be the red curve (---), a (1) unit radius required by Z\#1.
Curve $(a, b, i)$ is the initial CSDA nuclear assembly. Curve $(a, b, i)$ is also a a quad1 hypotenuse map of nuclear space, setting quantum level proportional(s).


Figure 4: fall to surface acc. crossovertravel

Let (a) be nuclear space carrying the (+charge) of a proton. (b) is a degree(2) curved space hypotenuse and curve $(i)$ is a Euclidean degree(1) square space hypotenuse. Both are solution curve constructions with respect (N) $\left(\frac{\pi}{2}\right)$ nuclear spin.

Use parametric solution curve to find registration(i) of nuclear spin with respect with the border integer keeping separate our infinities.

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Monday, October 17, 2022.02:02

## PROTIUM FORMULA GEOGRAPHY

## ALIXAND 2 R

2 infinity crossover

## ALEXANDER

| Name | Description | Value | Caption |
| :--- | :--- | :--- | :--- |
| Curve a | Curve $(\cos (\mathrm{t}), \sin (\mathrm{t}), \mathrm{t},-4,4)$ | $\mathrm{a}:(\cos (\mathrm{t}), \sin (\mathrm{t}))$ | integer separate |
| Curve c | Curve $\left(\mathrm{t}, \mathrm{t}^{0} /-2+1, \mathrm{t}, 0,2\right)$ | $\mathrm{c}:\left(\mathrm{t}, \mathrm{t}^{0} /-2+1\right)$ | reste |
| Curve $\mathrm{d}_{1}$ | Curve $(0.5 \cos (\mathrm{t}), 0.5 \sin (\mathrm{t}), \mathrm{t},-4,4)$ | $\mathrm{d}_{1}:(0.5 \cos (\mathrm{t}), 0.5 \sin (\mathrm{t}))$ | protonZ\#1 |
| Curve $\mathrm{e}_{1}$ | Curve $\left(\mathrm{t}, \mathrm{t}^{2} /-1+1, \mathrm{t},-1,1\right)$ | $\mathrm{e}_{1}:\left(\mathrm{t}, \mathrm{t}^{2} /-1+1\right)$ | Potential disp(2) |

Readings...11/8/22

| Curve f | Curve $(\mathrm{t},(1+4 \mathrm{t}) / 4, \mathrm{t},-0.5,2)$ | $\mathrm{f}:(\mathrm{t},(1+4 \mathrm{t}) / 4)$ |
| :--- | :--- | :--- |
| Point A |  | $\mathrm{A}=(1.41,0.29)$ |
| Point B |  | $\mathrm{B}=(1.41,0.5)$ |
| Curve d | Curve $\left(\mathrm{t}, \mathrm{t}^{1} /-2+1, \mathrm{t}, \mathrm{0}, 2\right)$ | $\mathrm{d}:\left(\mathrm{t}, \mathrm{t}^{1} /-2+1\right)$ |
| Point C |  | $\mathrm{C}=(1,0.5)$ |
| Curve b | Curve $\left(\mathrm{t}, \mathrm{t}^{2} /-4+1, \mathrm{t},-1,2\right)$ | $\mathrm{b}:\left(\mathrm{t}, \mathrm{t}^{2} /-4+1\right)$ |
| Point D |  | $\mathrm{D}=(0,0)$ |
| Point E |  | $\mathrm{E}=(2,0)$ |
| Curve t | Curve $\left(\mathrm{t}, \mathrm{t}^{1} /-2+1 / 2, \mathrm{t}, \mathrm{0}, 1\right)$ | $\mathrm{t}:\left(\mathrm{t}, \mathrm{t}^{1} /-2+1 / 2\right)$ |
| Curve u | Curve $\left(\mathrm{t}, \mathrm{t}^{2} /-2+1 / 2, \mathrm{t}, 0,1\right)$ | $\mathrm{u}:\left(\mathrm{t}, \mathrm{t}^{2} /-2+1 / 2\right)$ |
| Curve j | Curve $\left(\mathrm{t}, \mathrm{t}^{0} /-2+1 / 2, \mathrm{t}, 0,1\right)$ | $\mathrm{j}:\left(\mathrm{t}, \mathrm{t}^{0} /-2+1 / 2\right)$ |

Created with GeoGebra

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Sand Box Geometry LLC, a company dedicated to utility of Ancient Greek Geometry in pursuing exploration and discovery of Central Force Field Curves.

Using computer parametric geometry code to construct the focus of an Apollonian parabola section within a right cone.

"It is remarkable that the directrix does not appear at all in Apollonius great treatise on conics. The focal properties of the central conics are given by Apollonius, but the foci are obtained in a different way, without any reference to the directrix; the focus of the parabola does not appear at all... Sir Thomas Heath:
"A HISTORY OF GREEK MATHEMATICS" page 119, book II.

Utility of a Unit Circle and Construct Function Unit Parabola may not be used without written permission of my publishing company Sand Box Geometry LLC Alexander; CEO and copyright owner. alexander@sandboxgeometry.com

The computer is my sandbox, the unit circle my compass, and the focal radius of the unit parabola my straight edge.

ALEXANDER; CEO SAND BOX GEOMETRY LLC

## CAGE FREE THINKIN' FROM THE SAND BOX

The square space hypotenuse of Pythagoras is the secant connecting ( $\pi / 2$ ) spin radius $(0,1)$ with accretion point $(2,0)$. I will use the curved space hypotenuse, also connecting spin radius ( $\pi / 2$ ) with accretion point $(2,0)$, to analyze g-field mechanical energy curves.


CSDA demonstration of a curved space hypotenuse and a square space hypotenuse together.

We have two curved space hypotenuses because the gravity field is a symmetrical central force and will have an energy curve at the $\mathbf{N}$ pole and one at the $\mathbf{S}$ pole of spin; just as a bar magnet. When exploring changing acceleration energy curves of $M_{2}$ orbits, we will use the $N$ curve as our planet group approaches high energy perihelion on the north time/energy curve.

SANDBOX GEOMETRY WEB SITES:

1. (sandboxgeometry.com) Oldest site, untouched since inception by Betsy Labelle; $1^{\text {st }} \mathrm{Q} 2011$ (no longer web master).
2. (sandboxgeometry.info) my Blog/Diary.
3. (sandboxgeometry.org) Dated record of abstract presentation. A learning curve so to speak; about CSDA development.
4. (sandboxgeometry.net) unused.

BIBLIOGRAPHY ( $21^{\text {st }}$ Century internet used extensively as well as smart lookup for language word utility and fit).

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Data Reference for our Planet Group:
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## ALIXANDIR; CEO SAND BOX GEOMETRY LLC

## CONCLUSION

## 7/5/2018 Finally finished lifetime pursuit 1st winter 2018

Posted on June 29, 2018 by admin
Started Web Publishing March 2010. My daughter Michelle set up first foray. Last summer, after 7 years of no comment from academia, after repeated rejection from 21st century publishing venue, I decided I would write my innovative discovery geometry about Central Force Energy Curves using 5 computer languages, targeting general public interest, hopefully catching a publisher. The code, in order of utilization, Mathematica, Texas Instrument n-spire, Sage, GeoGebra, and Maple. Got the first three done, started with GeoGebra while awaiting approval from Maple to use their CAS.
I first encountered GeoGebra 2011 mini-course offered @MAA Summerfest. Learned quickly static math, could not do dynamic math till 2017 summer efforts. Wow, what a CAS!

Anyway, I was off and running! GeoGebra dynamic math knitted loose ends cluttering my imagination into spectacular order! i was able to see all aggregate human knowledge, using the pearls of discovery, providing a reasonable philosophy, to be understood by all, helped, of course with 21st century computer technology!

I post my cover page, purposely using Sir Isaac Newton's famous title, only as a suggested philosophical addendum, a continuation of a phenomenal line of thought using plane geometry lines and curves, souped up with his and Gottfried Wilhelm Leibniz, the Calculus.

Don't claim to know a lot about anything specific, just a general cognizance of 74 years human curiosity. I become octogenarian March 14, 1944

AL工XAND $\Sigma$; CEO SAND BOX GEOMETRY LLC

