#### <u>12/21/24</u>.<u>09:34</u>.

Exploring inversed parametric mechanical energy curves working as potential in two SpaceTime spheres. Micro Infinity SpaceTime of S&T(3), our nuclear Quantum World, and S&T(2) Classic Big Surface Acceleration Curves of  $(M_1)$ .

AL $\Sigma$ XAND $\Sigma$ R; CEO SAND BOX GEOMETRY LLC A tale of two potential(s)

On inversing operating potential found each side of surface acceleration at the crossover border of space curve SC(1).

December 9, 2024.<u>02:31</u>.

This exploratory will establish a means to inverse ME curves and split potential working both spheres of human SpaceTime in to two parts. One part working central force spin and one part working central force plane of rotation; accretion. Inversed potential. A CurvedSpace answer to SquareSpace Inverse Square Law.

Galileo's S&T1 has paved the way for S&T2 and S&T3.

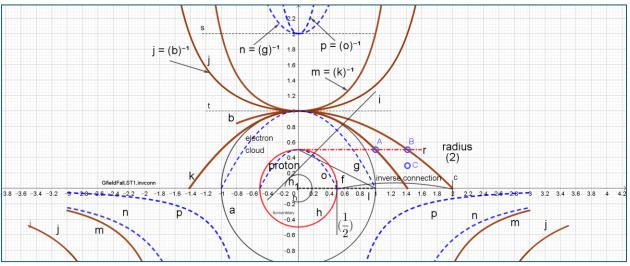
The humans who knew little were smarter than the humans who think they know everything. Study the things before your eyes. Turn them over in your mind using your imagination. Hammer thoughts into the shape God has given what your eyes pperceive.

27pages, 4000words 12/21/24.23:07.

Protium: pgs2-4;	Helium: pgs5-	-6	Lithium: 7-9	SC(4); Beryllium pg18
SC(7) Nitrogen	10-12.	SC(6),	Carbon pg 14-	-

I begin with Protium. I have used index solution curves to construct three parametric definitions of central force mechanical energy curves. Potential, registration of displacement with  $(M_1)$  spin, and a rest energy declarative. Let G-field rest energy be a direct connection with a 1/2 unit jump up or down spin range leaping across average energy diameters of consecutive orbit(s). Quantum world rest energy is the ground state of a CSDA Z#(n) discovery proton.

I use <u>inversed</u> index solution curves to study workplace assignment of central force mechanical energy potential(s). I find four. Period Time Curve(b), potential  $(M_1)$  curve(k), binding parabola electron cloud curve(g), Potential curve(o) within nucleus existence space(h).



*Figure 1*: Let curves(a&b) be a basic CSDA at the border crossing of surface acceleration curve of M1's SC(1). Into the micro Infinity world of quanta nuclear space from macrospace gravity. (h) is protium proton existence space and  $h_1$  is nuclear binding energy. The inverse connect links SquareSpace with CurvedSpace.

I use four colors. The blue colors are quantum world happenings. If we look at curve(n) at range(+2), we have two blue hash mark asymptotic curves. Curves(n&p) at range(2) of spin are what I call main body <u>inverse</u> solution curves sourced from index solution curves. Quanta world potential curves(o&g) have been inversed.

Blue for S&T(3), and brown for S&T(2).

Inverse potential asymptotes are domain *limits* of the potential existence space, in a captured containment space sense as to where they are permitted to operate. Asymptote(p) define limits of proton existence space,  $\pm \left(\frac{1}{2}\right)$  each side of spin. Curve(n) asymptotic definition limits existence space of the electron cloud,  $\pm 1$  unit space each side of spin. I call curved space asymptotes spirit curves. I Assign ( $\pm charge$ ) to their existence. These guys work the open space rotation plane of accretion. Main body solution curves work the CSDA central core. S&T2 is gravity and S&T3 are nuclear gravitons.

<u>12/21/24</u>.09:34.

Solid brown lines are S&T2 central force mechanical energy happenings of gravity. Curve(j) is captured by average energy curve of displacement happening on the period time curve of Orbit(1). Curve(m) Asymptote limits are system potential:  $(\pm \sqrt[2]{2})$ . This whole diagram is a crossover happening. We have left SpaceCurve(2), arrived at the surface acceleration curve of SpaceCurve(1) aka ( $M_1$ ), penetrated surface acceleration by falling between the nuclear cracks using rest energy curve(r) of discovery(a), to find the first discovery(h); a proton. S&T2 Discovery curve(a), now becomes the S&t3 electron cloud, now a dependent quanta definition curve for the nucleus Z#(1).

## index/inverse solution curves of protium

Name	Description	Caption		
Curve a	Curve(cos(t), sin(t), t, -5, 5)	S&T2 discovery curve		
Curve c	Curve(2, t, t, -0.1, 0.1)	displacement radius SC2 OrbitCurve(1)		
Curve e	manufactured curve	Inverse connection		
Curve f	Curve(t, $t^1 / -2 + 1 / 2$ , t, 0, 1)	registration electron cloud with proton spin.		
Curve g	Curve(t, $t^2 / -2 + 1 / 2$ , t, 0, 1)	electric potential, ecloud proton spin.		
Curve h <sub>1</sub>	Curve(0.5cos(t), 0.5sin(t), t, -10, 10)	protium nucleus binding energy curve		
Curve b	Curve(t, $t^2 / -4 + 1$ , t, -0.8, 2)	period time curve. SC2 OrbitCurve(1)		
Point A		crossover		
Point B		Crossover.		
Point C		Crossover.		
Curve h	Curve(1 / (4sqrt(2)) cos(t), 1 / (4sqrt(2)) sin(t), t, -2, 3)	Protium nucleus existence space		
Curve i	Curve(t, (1 + 4t) / 4, t, -0.4, 1)	Etan normal connect with like element bond plane.		
Curve j	Curve(t, $(t^2 / -4 + 1)^{-1}$ , t, -3, 3)	main body inverse solution curve (period time curve(b) <sup>-1</sup> .		
Curve k	Curve(t, $t^2 / -2 + 1$ , t, -sqrt(2), sqrt(2))	S&T2 ( $M_1$ ) system potential		
Curve l	Curve(t, $t^0 / -1 + 1, t, -0, 1$ )	ground state protium Proton.		
Curve m	Curve(t, $(t^2 / -2 + 1)^{-1}$ , t, -3, 3)	main body inverse solution curve $((M_1)$ system potential curve $(k)^{-1}$ .		

## ΑLΣΧΑΝDΣR

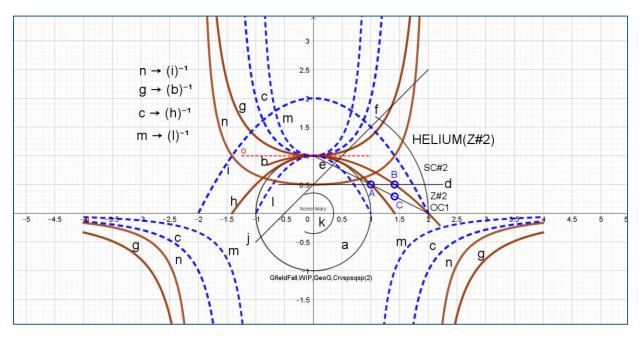
Curve n	Curve(t, $(t^2 / -2 + 0.5)^{-1}$ , t, -3, 3)	existence space of ecloud limit curve(g) <sup>-1</sup>
	Curve(t, $t^2 / -0.5 + 0.5$ , t, -0.5,	
Curve o	0.5)	graviton potential of protium proton.
		$\pm$ spirit curves of main body inverse solution
Curve p	Curve(t, $(t^2 / -0.5 + 0.5)^{-1}$ , t, -3, 3)	curve(o).
Curve r	Curve(t, 0.5, t, -0, 1.6)	rest energy discovery(a) S&T2
		closest approach quantum field electron and
Curve s	Curve(t, 2, t, -1.25, 1)	proton, Curvature value SC2 OrbitCurve(1).
		closest approach S&T2 inverse potential
		M1 and period time curve, Curvature value
Curve t	Curve(t, 1, t, -1.2, 1.2)	SC2 OrbitCurve(1).

## Conclusion.

Both potential curves for S&T(2), curve(k) is the potential of M1 and period time curve(b) tracks ( $M_2$ ) orbit energy, both remain S&T(2) relative. Discovery curve(a) now becomes the electron cloud of Z#1. Now a dependent curve working Quanta.

Curve(*h*) is the nucleus existence space. Curve(*o*), S&T(3) potential, is graviton intensity of nucleus to acquire accretive candidates of like elements. Curve(*o*) intensity is increased by S&T(3) potential curve(*g*), the electrical link joining the electron field(-) with the proton(+); combined, an electromagnetic field. Rest Energy is ground level for the proton. It is here, at the crossover surface acceleration, that we have change of hierarchy. The discovery curve now becomes the electron cloud, dependent definition curve for the Z number.

# Helium, Z#2, OrbitCurve1, SC#2



# Helium Z#2 OrbitCurve1 and inverse index solution curves

# ΑLΣΧΑΝDΣR

Name	Description	Caption
Curve a	Curve(cos(t), sin(t), t, -5, 5)	discovery curve SC2, Orbit curve(1).
Curve b	Curve(t, $t^2 / -4 + 1$ , t, -0.8, 2.2)	period time curve. SC2 OrbitCurve(1)
Curve e	Curve(t, $t^1 / -2 + 1 / 1$ , t, 0, 2)	registration electron cloud with proton spin.
Curve h	Curve(t, $t^2 / -2 + 1$ , t, -sqrt(2), sqrt(2))	S&T2 ( $M_1$ ) system potential
Curve c	Curve(t, $(t^2 / -2 + 1)^{-1}$ , t, -4, 4)	main body inverse solution curve ( $(M_1)$ system potential curve(h) <sup>-1</sup> .
Curve g	Curve(t, $(t^2 / -4 + 1)^{-1}$ , t, -4, 4)	main body inverse solution curve (period time curve(b) <sup>-1</sup> .
Curve f	Curve(2cos(t), 2sin(t), t, -0.05, 1)	Z#2 stop binding to it. electron cloud

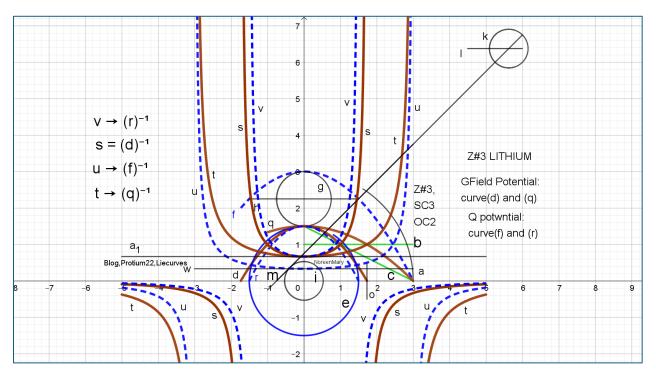
		Z#(2) electron proton binding parabola.
Curve i	Curve(t, $t^2 / -2 + 2, t, -2, 2)$	ST(3) potential curve
		Etan normal connect with like element bond
Curve j	Curve(t, $(1 + 2t) / 2$ , t, -1, 2)	plane.
	Curve(1 / (2sqrt(2)) cos(t), 1 /	
Curve k	(2sqrt(2)) sin(t), t, -2, 2)	nucleus binding energy curve
		graviton potential of nucleus existence space.
Curve l	Curve(t, $t^2 / -1 + 1, t, -1, 1$ )	S&T3 potential curve.
Curve m	Curve(t, $(t^2 / -1 + 1)^{-1}$ , t, -4, 4)	nucleus potential curve(l) inversed
Point A		Crossover.
Point B		Crossover.
Point C		Crossover.
		electron cloud curve I inversed. A S&T(3)
Curve n	Curve(t, $(t^2 / -2 + 2)^{-1}$ , t, -4, 4)	potential.
		rest energy, link system potential( <i>h</i> ) with
Cumua d	$C_{\rm M} = (t + 0 / 2 + 1 + 0 < 2.25)$	period time curve(b). Curvature limit, closest
Curve d	Curve(t, $t^{\circ} / -2 + 1$ , t, -0.6, 2.25)	approach of electron cloud curve $(i^{-1})$ .
		Curvature limit, closest approach of curve
Curve o	Curve(t, 1, t, -1.25, 1)	$(g^{-1}), (c^{-1}), (m^{-1})$

It looks like the period time curve(b) inverse(index) switches position with  $(M_1)$  potential as to which side of accretion with respect to spin we would look, And we have flipped the discovery curve(a). Curve(a) is now the dependent electron cloud defining Z# and (*SpaceCurve*).

Quanta curves(l and h) remain as position assigned spin or rotation.

#### <u>12/21/24</u>.<u>09:34</u>.

Lithium, Z#3, SC3, Orbitcurve(2)



I need to apologize. For the spontaneity of my constructions. It is truly a 'what do I do now?' mentality in putting these instructions together. Letters will be different. Objects remain the same.

I work with two SpaceTime potentials.

S&T(2): 1) the period time curve of  $(M_2)$ . Also, 2)the potential curve of  $(M_1)$ . A degree(2) energy curve with legs planted firmly on the central force domain as  $(\sqrt[2]{SpaceCurve})$ .

S&T(3): 1) a degree(2) energy curve planted firmly within the nucleus existence space with legs stretched the distance:  $\left(\pm \frac{SpaceCurve}{2}\right)$ . I imagine the intensity of this curve gives the nuclear Quanta Field central force gravitons with which to build nuclear accretive assemblies of like elements. 2)The intensity of such phenomena is sourced from the binding parabola of the electron cloud. The legs of this degree(2) energy curve(*f*) connect the (-) electron field with nucleus (+)proton. Bringing a spinning electromagnetic field to the structure.

As spirit curves approach rotation along negative spin, they are ordered. Most remote will be curve(t), S&T2 period time curve. Next in out position will be curve(u), electron cloud. Than comes curve(s) system potential M<sub>1</sub>. Lastly curve(v), nuclear potential graviton.

These curves flip as main body inverse solution curves and share two curvature approach limits. Curve(w) is 1/3 or curvature of SC(3) and curve(a<sub>1</sub>) is curvature limit (2/3) curvature of nucleus

existence space (3/2). Three curves(t&s) of S&T2 and curve(v) of S&T3 hug the nuclear curve limit ( $a_1$ ). Curve(u), the electron cloud inversed is really digging in to the nucleus positive.

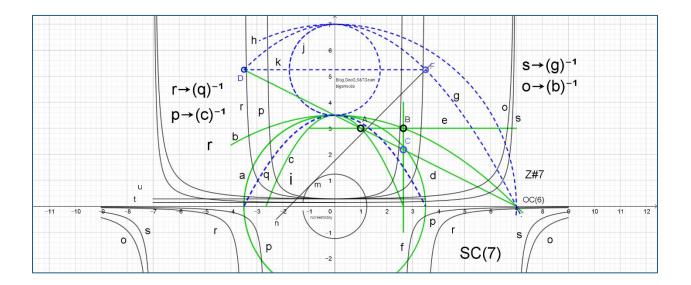
## Li,SC3,Z#3,orbit(2) and inverse index solution curves

#### ΑLΣΧΑΝDΣR

Name	Description	Caption
Curve b	Curve(t, $t^0 / -2 + 3 / 2, t, 0, 3$ )	rest energy discovery( <i>e</i> )
Curve c	Curve(t, $t^1 / -2 + 3 / 2, t, 0, 3$ )	registration proton spin with ecloud
Curve f	Curve(t, $t^2 / -3 + 3$ , t, -sqrt(3), 3)	Binding parabola ecloud. S&T3 potential
Curve g	Curve(0.75cos(t) + 0, 0.75sin(t) + 9 / 4, t, -5, 5)	closed neighborhood( $p$ ) of binding parabola( $f$ ).
Curve h	Curve(t, 9 / 4, t, -3 / 2, 3 / 2)	Not used
Curve i	Curve(3sqrt(2) / 8 cos(t), 3sqrt(2) / 8 sin(t), t, -5, 5)	nucleus binding energy curve
Curve k	Curve $(3$ sqrt $(2) / 8 \cos(t) + 45 / 8,$ 3sqrt $(2) / 8 \sin(t) + 51 / 8, t, -5, 5)$	like element bond and ring on bond plane
Curve j	Curve(t, $sqrt(9 + t^2)$ , t, -1.5, 6)	not used
Curve 1	Curve(t, 51 / 8, t, 4.5, 6)	bond plane.
Curve d	Curve(t, $t^2 / -2 + 1.5$ , t, -sqrt(3), sqrt(3))	system potential. S&T2 energy curve.
Curve e	Curve(1.5cos(t), 1.5sin(t), t, -5, 1)	looking tired what is hooking me? Don't say hey.
Curve n	Curve(t, $t^2 / 6 - 3 / 2, t, 0, 6$ )	existence space of nucleus
Curve m	Curve(t, $(3 + 4t) / 4$ , t, -0.75, 3)	Etan normal connect with like element bond plane.
Curve o	Curve(sqrt(3), t, t, -0.5, 0.5)	Nuclear binding energy curve.

Curve p	Curve(t, $t^2 / -24 + 1.5$ , t, -2, 6)	not used.
Curve a	Curve(3cos(t), 3sin(t), t, -0.01, 1)	space curve(3), Z#3, Orbit curve(2).
Curve q	Curve(t, $t^2 / -6 + 1.5$ , t, -1, 3)	period time curve orbit(2)
Curve r	Curve(t, $t^2 / -1.5 + 1.5$ , t, -1.5, 1.5)	potential curve nucleus. S&T(3).
Curve s	Curve(t, $(t^2 / -2 + 1.5)^{-1}$ , t, -5, 5)	System potential $(M_1)$ S&T(2).
Curve t	Curve(t, $(t^2 / -6 + 1.5)^{-1}$ , t, -5, 5)	Curve(q) inversed
Curve u	Curve(t, $(t^2 / -3 + 3)^{-1}$ , t, -5, 5)	binding parabola( $f$ ) inversed.
Curve v	Curve(t, $(t^2 / -1.5 + 1.5)^{-1}$ , t, -5, 5)	nucleus S&T(3) potential inversed
Curve w	Curve(t, 1 / 3, t, -3, 3)	curvature limit for binding parabola inverse. S&T(3) potential. Curve( $f$ ).
Curve a <sub>1</sub>	Curve(t, 2 / 3, t, -5, 5)	not used
Curve b <sub>1</sub>	Curve(t, $(3 + 4t) / 4$ , t, -1, 6)	Not used.

# Some stuff for SC(7)



# bigspace,smallspace SC&, Z#7

## ΑLΣΧΑΝDΣR

Name	Description	Caption
Curve a	Curve(3.5cos(t), 3.5sin(t), t, -5, 5)	discovery curve. SpaceCurve(7).
Curve b	Curve(t, $t^2 / -14 + 3.5$ , t, -4, 7.25)	Period time curve( <i>b</i> ), Orbit curve(7).
Curve c	Curve(t, $t^2 / -2 + 3.5$ , t, -sqrt(7), sqrt(7))	M1 system potential
Curve e	Curve(t, $t^0 / -2 + 3.5, t, -1, 7$ )	rest energy discovery(a)
Curve f	Curve(sqrt(7), t, t, -1, 4)	Abscissa ID square root 7
Curve g	Curve(t, $t^2 / -7 + 7$ , t, -3.5, 7.2)	Binding parabola, S&T3 potential.
Curve i	Curve(7 / 4 cos(t), 7 / 4 sin(t), t, -5, 5)	not used
Curve j	Curve(7 / 4 cos(t), 7 / 4 sin(t) + 21 / 4, t, -5, 5)	close neighbourhood binding parabola(p)
Curve k	Curve(t, 21 / 4, t, -7 / 2, 7 / 2)	Latus rectum cord binding parabola

SAND BOX GEOMETRY

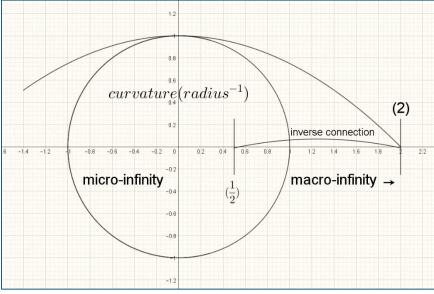
Curve l	Curve(t, $t^2 / -2 + 7 / 2$ , t, -2, 2)	not used
Point A		Crossover.
Point B <sub>1</sub> (3.5, 3.5)		not used
Point D		negative endpoint. latus rectum. Binding parabola.
Point B		Crossover.
Point C		Crossover.
Curve m	Curve(7 / (4sqrt(2)) cos(t), 7 / (4sqrt(2)) sin(t), t, -3, 3)	binding energy curve Z#(7).
Curve d	Curve(t, $t^1 / -2 + 3.5, t, -3.5, 7$ )	registration SC(7) with spin
Point E		not used
Point F		Not used.
Curve h	Curve(7cos(t), 7sin(t), t, -0.05, 2)	SC(7), Z#7, Orbit curve(6).
Curve o	Curve(t, $(t^2 / -14 + 3.5)^{-1}$ , t, -9, 9)	period time curve inverse, S&T(2) potential.
Curve p	Curve(t, $(t^2 / -2 + 3.5)^{-1}$ , t, -9, 9)	system potential curve( <i>c</i> ) inverse
Curve q	Curve(t, t <sup>2</sup> / -3.5 + 3.5, t, -3.5, 3.5)	graviton potential of nucleus. S&T3 Potential.
Curve r	Curve(t, $(t^2 / -3.5 + 3.5)^{-1}$ , t, -9, 9)	inverse of nucleus potential
Curve n	Curve(t, (7 + 4t) / 4, t, -2.25, 3.75)	Etan normal connect with like element bond plane.
Curve s	Curve(t, $(t^2 / -7 + 7)^{-1}$ , t, -9, 9)	inverse binding parabola S&T(3) potential
Curve t	Curve(t, 1 / 7, t, -7, 0)	curvature approach limit of inversed binding parabola curve(g).

		curvature limit of approach for period time curve(b), System
		potential(c), And nucleolus graviton
Curve u	Curve(t, 1 / 3.5, t, -7, 3.5)	potential(q)

This protocol establishes means to construct SquareSpace/CurvedSpace Mechanical Energy registration phenomena of two Central Force Fields. Mechanical lines and curves of their existence space and where they work.

Let it serve as my Prologue to:

A tale of two SpaceTime potential(s): Nuclear and Gravity



I invented a Curved Space Division Assembly (**CSDA**) so I could use curves to study curved space mechanical phenomena. I have been working with methods to construct G-field mechanical energy curves for 35(+) years.

I feel the only way to, analyze, construct, and see Central Force active mechanical energy is with Computer Based

Figure 2: a CSDA standard model connecting macro space with micro space

Geometry. Specifically, computer based Parametric Geometry using curves.

Constructing mechanical energy curves of potential begins with sandbox geometry index solution curves. Of primary interest will be  $\binom{0,1,2}{\sqrt{2}}$  inquiry curves inversed.

I begin with Protium, Z#(1). Parametric Geometry of this atom is the portal. the long sought passageway connecting Big Space and Small Space. Here I found the mechanical energy 'Mobius Strip' linking the back and fourth, fall and climb, between Quantum Small space and Classic Big space.

A **CSDA** is a central relative machine. Being so, I can study the two infinities of our being, working as one, side by side, kept separate by boundary of the Independent Discovery Curve surface acceleration. Let macro-nfinity be the realm of radius and micro-infinity that of curvature.

Parametric Central Relativity view of the Creation is a two-way street. One end of vision, by the human mind into the space of our being, is a place for curvature. The other end is radius of that curvature. Piercing the Deep Field somewhere near the beginning, collapse, or end of <u>our</u> Big Bang epoch. This Infinity has no place, it's open space.

The Ancients believed we were the center of the Creation. Turns out they're right. Curvature, anchored firmly in our mind, sets *our* sight line as Center of our place in a Creation with out bound.

Micro space infinity, the realm of curvature, and macro space infinity for radius, is our sight line of vision linking God's Creation with human intellect.

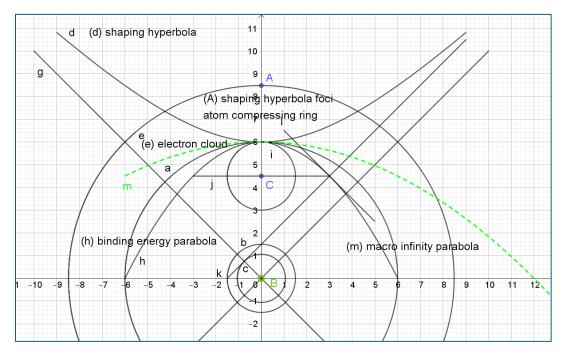
<u>12/21/24</u>.09:34.

Thursday, February 22, 2018 (CARBON Z#6)

Standard ID of curvature evaluation of nuclear construction.

Sourced from: > CSDA Parametric Geometry> curvature evaluation for carbon.

Significant curves of carbon space:



• Electron cloud:  $(6\cos(t), 6\sin(t))$ . RoC = 6; (k = 1/6)

Method for curvature evaluation (any 1<sup>st</sup> year calculus text book):

• Binding energy parabola:  $\left(t, \frac{t^2}{-6} + 6\right)$ . Find first and second derivative.

deriv
$$\left(\left(\frac{t^2}{-6}\right)+6,t\right) = -\frac{t}{3}$$
. and deriv $\left(\frac{-t}{3},t\right) = -\frac{1}{3}$ 

 $\frac{\frac{1}{3}}{\left(1 + \left(\frac{0}{-3}\right)^2\right)^{\frac{1}{3}}} = \frac{1}{3} \text{ and } \text{RoC} = 3.$ 

Using (p = 3/2).  $1/4*\left(\frac{\pi}{2}\right)$  spin radius of Z#6 ) finds initial focal radius (p) = 3/2: Every parabola vertex RoC = (2p). Parabola RoC =  $(2 \times (3/2) = 3 \xrightarrow{yields} k = 1/3.$ 

• Shaping hyperbola:  $(t, \sqrt{(Z^{\#})^2 + t^2})$ ; Find first and second derivative.

SAND BOX GEOMETRY

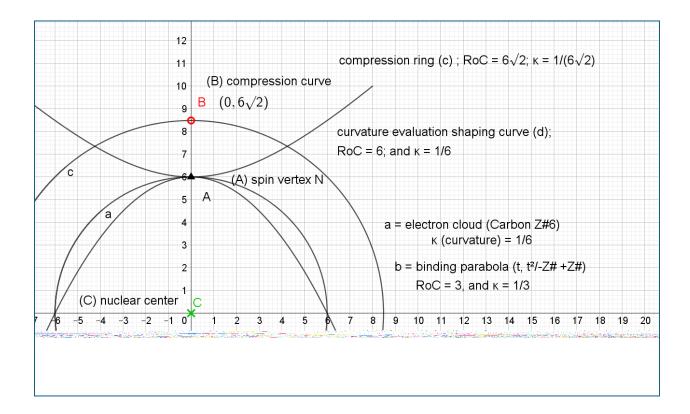
Readings from the SandBox

<u>12/21/24</u>.<u>09:34</u>.

deriv
$$\left(\sqrt{36+t^2},t\right) = \frac{t}{\sqrt{t^2+36}}$$
; and deriv $\left(\frac{t}{\sqrt{t^2+36}},t\right) = -\frac{t^2}{\left(t^2+36\right)^{\frac{3}{2}}} + \frac{1}{\sqrt{t^2+36}}$ 

therefore  $k = (let (t) go to \pi/2 spin axis where abscissa is always 0):$ 

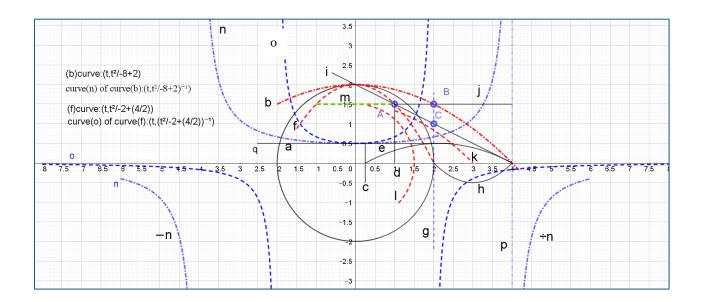
$$\left(\frac{\frac{0^2}{(0^2+36)} + \frac{1}{\sqrt{0^2+36}}}{\left(1 + \frac{0}{\sqrt{0^2+36}}\right)^{\frac{3}{2}}}\right) = \frac{1}{6}, \text{ and } \text{RoC} = 6$$



Curve	Radius of curvature	Curvature	Dec. equivalent on RoC
Ecloud	6	1/6	
Shaping hyperbola	6	1/6	
Binding parabola	3	1/3	
Compression ring	$(6\sqrt{2})$	$\left(\frac{1}{(6\sqrt{2})}\right)$	8.485
Nuclear shaping curve	3/2	2/3	1.5
Nuclear binding energy curve	(3√2)/4	$\frac{2\sqrt{2}}{3}$	1.060

## <u>12/21/24</u>.<u>09:34</u>.

SC#4. Z#4. Orbit curve 3. A construction map of two inverse potentials of curved space. one is potential of  $(M_1)$  which also serves as the potential of the nucleus at vertex range 2. Leg to leg on the spin diameter of the nucleus existence space. The other potential is that of curve B, the period time curve, which serves as.  $(M_1)$  asymptotic limits of average diameter of accretion.



Srghsdfbxfbnxfgnxfgh

nszdfhwrtustrjhsfgjhsfgjsf

<u>12/21/24</u>.<u>09:34</u>.

z	tannor	bndplane	ecloud	nuclear	trans	р	n	trans	transition curve
			corner	corner	center			radius	
6	$\{t, \frac{1}{2} \times (3 + 2t)\}$	$\frac{45}{4}, \frac{51}{4}$	6,12	$\frac{3}{4}, \frac{27}{4}$	$\frac{27}{8}, \frac{75}{8}$	<u>3</u> 2	$\frac{3}{2 \sqrt{2}}$	<u>21</u> 8	$\left\{\frac{21}{8}\cos[t]+\frac{27}{8},\frac{21}{8}\sin[t]+\frac{75}{8}\right\}$

ParametricPlot 
$$\left[\left\{\{t, t\}, \{t, t+6\}, \{t, +6t\}, \{6\cos[t], 6\sin[t]\}, \left\{t, \sqrt{36+t^2}\right\}, \left\{t, 6\sqrt{1+t^2}\right\}, \left\{t, \frac{1}{2} \times (3+2t)\right\}, \left\{t, \frac{t^2}{-6} + 6\right\}, \left\{\frac{45}{4}, t\right\}, \left\{t, \frac{51}{4}, t\right\}, \left\{t, \frac{27}{4}\right\}, \{6, t\}, \{t, 12\}, \left\{\frac{3}{2}\cos[t] + 0, \frac{3}{2}\sin[t] + 0\right\}, \left\{\frac{3}{2\sqrt{2}}\cos[t] + 0, \frac{3}{2}\sin[t] + 0\right\}, \left\{\frac{3}{2\sqrt{2}}\cos[t] + \frac{45}{4}, \frac{3}{2\sqrt{2}}\sin[t] + \frac{51}{4}\right\}, \left\{\frac{21}{8}\cos[t] + \frac{27}{8}, \frac{21}{8}\sin[t] + \frac{75}{8}\right\}, \{t, -5\pi, 5\pi\}, AspectRatio \rightarrow Automatic, PlotRange \rightarrow \{\{-6, 15\}, \{-6, 15\}\}\right]$$

Z #6. Space curve 6., Orbit curve 5. Inverse potential. S&T3

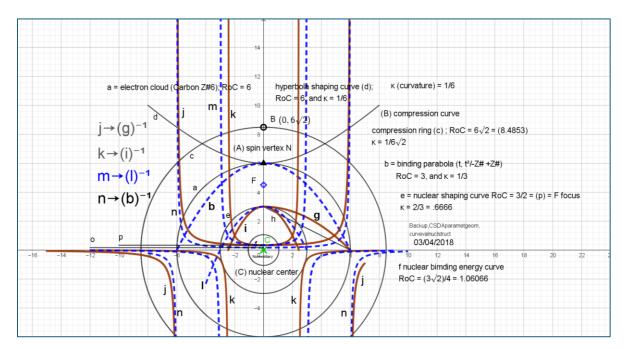


Figure 3: heavier elements and inverse potential leaps and changes? Inverse electron cloud still beating up the nucleus positive!

SAND BOX GEOMETRY

# SC6 Z#6 Carbon and potentials inversed

# ΑLΣΧΑΝDΣR

Name	Value
Point F	F = (0, 6)
Point B	B = (0, 8.49)
Text text1	"a = electron cloud (Carbon Z#6); RoC = 6"
Text text2	"b = binding parabola (t, $t^2/-Z\# +Z\#$ )"
Text text3	" $\kappa$ (curvature) = 1/6"
Text text4	"RoC = 3, and $\kappa = 1/3$ "
Text text5	"compression ring (c) ; RoC = $6\sqrt{2} = (8.4853) \kappa = 1/6\sqrt{2}$ "
Text text6	"hyperbola shaping curve (d); RoC = 6; and $\kappa = 1/6$ "
Curve d	$d:(t, \sqrt{(36+t^2)})$
Curve a	a:(6cos(t), 6sin(t))
Curve c	c: $(6\sqrt{2})\cos(t), 6\sqrt{2}\sin(t))$
Text text7	"(0, 6√2)"
Point C	C = (0, 0)
Text text8	"(A) spin vertex N"
Text text9	"(B) compression curve"
Text text10	"(C) nuclear center"
Text text11	"e = nuclear shaping curve RoC = $3/2 = (p) = F$ focus $\kappa = 2/3 = .6666$ "
Curve f	$f:(3\sqrt{2} / 4\cos(t), 3\sqrt{2} / 4\sin(t))$
Text text12	"f nuclear bimding energy curve RoC = $(3\sqrt{2})/4 = 1.06066$ "

Point D	D = (0, 4.5)
Curve e	$e:(3\cos(t), 3\sin(t))$
Curve g	$g:(t, t^2 / -12 + 3)$
Curve h	$h:(t, t^1 / -2 + 3)$
Curve b	$b:(t, t^2 / -6 + 6)$
Curve i	$i:(t, t^2/-2+3)$
Text text13	"i"
Text text14	"g"
Text text15	"b"
Text text16	$j \rightarrow (g)^{-1}$
Text text17	"Backup,CSDAparametgeom, curvevalnuclstruct"
Text text18	"NoreenMary"
Curve j	$j:(t, (t^2 / -12 + 3)^{-1})$
Curve k	k:(t, $(t^2 / -2 + 3)^{-1})$
Text text19	$"k \rightarrow (i)^{-1}"$
Text text20	"k"
Text text21	"k"
Text text22	"k"
Text text23	"j"
Text text24	"j"
Text text25	"j"
Curve 1	$l:(t, t^2 / -3 + 3)$

Text text26	"1"
Curve m	m: $(t, (t^2 / -3 + 3)^{-1})$
Text text27	$"m \rightarrow (l)^{-1}"$
Text text28	"m"
Text text29	"m"
Text text30	"m"
Curve n	$n:(t, (t^2 / -6 + 6)^{-1})$
Text text31	"n"
Text text32	"n"
Text text33	"n"
Text text34	$"n \rightarrow (b)^{-1}"$
Text text35	"03/04/2018"
Curve o	o:(t, 0.17)
Curve p	p:(t, 0.33)
	1

<u>Conclusion</u>. Inverse index solution curves are central force properties of accretion. They work on the rotation accretion plane

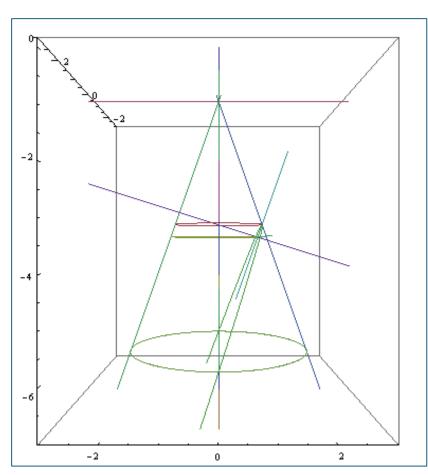
The full body solution curve Descends along the positive positive spin and another from Infinity along the negative spin the rotation axis. Inverse solution spirit curves are sign sensitive. There will exist a  $(\pm)$  set.

<mark>12/21/24</mark>.<u>09:34</u>.

# COPYRIGHT ORIGINAL GEOMETRY BY

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 <u>Sand Box Geometry LLC</u> Alexander; CEO and copyright owner. <u>alexander@sandboxgeometry.com</u>

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

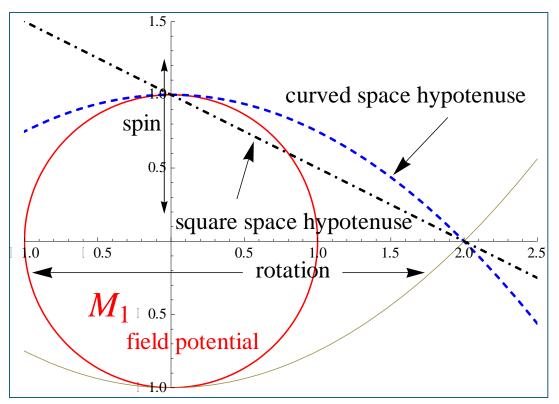
ALXANDER; CEO SAND BOX GEOMETRY LLC

## 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 N pole and one at the 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.



ALXXANDXR; CEO SAND BOX GEOMETRY LLC

#### SANDBOX GEOMETRY WEB SITES:

- (sandboxgeometry.com) Oldest site, untouched since inception by Betsy Labelle; 1<sup>st</sup> 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 ( $21^{st}$  Century internet used extensively as well as smart lookup for language word utility and *fit*).

#### Mathematica References:

- 1. The *Mathematica* Book (version 4, 4<sup>th</sup> edition). Stephen Wolfram Cambridge University Press
- 2. Modern Differential Geometry of Curves and Surfaces with *Mathematica* Alfred Grey; CRC Press.
- 3. The Beginners Guide to *Mathematica* (version 4)..Jerry Glynn, Theodore Gray Cambridge University Press

Data Reference for our Planet Group:

- 4. Hand Book of Chemistry and Physics (64<sup>th</sup> Edition, 1983-1984) CRC Press
- 5. Exploration of the Universe. George Abell; Holt, Rinehart, and Winston; 1968

#### Geometry:

- 6. A History of Greek Mathematics, Volume I & II. Sir Thomas Heath; 1921 Republished by Dover Science Books; 1981
- 7. Research & Education Association PROBLEM SOLVERS, Plane, Solid, and Analytic Geometry
- 8. Elements of Plane and Spherical Trigonometry. Daniel A. Murray; Longmans, Green, And Co.; 1912

9. Plane Geometry. Betz and Webb, Ginn And Company; 1912

10. Analytic Geometry; Drs. Wilson and Tracey. D C Heath and Co.; 1925

#### Physics:

- 11. Adventures in Physics; Highsmith & Howard. WB Saunder and Co. 1972
- 12. Physics, Hausmann & Black, D. Van Nostrand Company; 1939
- A Contemporary View of Elementary Physics, Borowitz & Bornstein McGraw-Hill; 1968

Mathematics:

- 14. Research and Education Association; The Vector Analysis Problem Solver
- Algebra, Trigonometry, and Analytic Geometry; Rees and Sparks. McGraw-Hill; 1967
- Calculus of a Single Variable; Larson, Hostetler, Edwards. Houghton Mifflin Co 1998
- 17. Research and Education Association; Calculus Problem Solver
- Analytic Geometry and the Calculus; A. W. Goodman. Macmillan Publishing Co 1974
- Calculus with Analytic Geometry; Louis Leithold-USC; Harper and Row 1968 My first Calculus Text Book; Thank you Mr. Louis Leithold.

## ALXANDER; 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, <del>1944</del> 2024

ALXANDER; CEO SAND BOX GEOMETRY LLC