Reading from the SandBox

Monday, October 19, 2020 2:00 AM

ALΣXANDΣR; CEO SAND BOX GEOMETRY LLC

WTC 2020 VIRTUAL1

October 19
2020

1st WTC October 2020 virtual technology conference re-do

I could not acquire a record of presentation (…Bonding…) on Oct. 7th as requested from Wolfram Research Organization. The record is incomplete, so acquisition is mooted. Let it be understood that the record is lacking on part from my own volition, designed by ignorance concerning Wolfram Language Dynamics. It being their venue, I elected to not present GeoGebra Dynamics I use in my research. A complete presentation is necessary to bring full circle my imaginative exploration of Thermodynamics of Central Force Curved Space, in an effort to smooth rough edges of a Wolfram Demonstration lacking 21st century computer based math dynamics.

I begin with the abstract and record of acceptance.

ALΣXANDΣR; CEO SAND BOX GEOMETRY LLC

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Wednesday, July 8, 2020

Potential title and abstract for Wolfram Tech Conference Oct. 2020.

Title:

Bonding Like Period Element Atoms Using Parametric Geometry and Z#

52 characters no spaces; 61 characters with.

ABSTRACT:

Constructing a bonding profile of nuclear energy curves structuring two like atoms are built with two parametric geometry sections. One section will be atom1 and the other section is atom2. Let Atom1 be south of atom2 and both atoms be separated by a bond plane. Spin axis bond comprising two atoms involves conserved symmetry. Fold any two like atoms along the spin axis letting east meet west or fold on the bond plane of rotation letting north meet south, and profile symmetry of same element nuclear curves will be conserved. Only profile geometry will change to accommodate increasing atomic 'weight' by utilizing Z# as electron cloud radius to construct period elements. Parametric unity geometry is used to construct atom one. A unit circle, ± slope one tangent and tangent normal constructed at +2 Latus Rectum endpoint of ecloud dependent curve parabola, and square nuclear shaping hyperbola asymptotes, are all used to parameterize constructing a nuclear standard model. Protium Hydrogen (^{1}H) is the primitive source standard model I use to construct period elements. Constructions differ by using element Z#. Parametric geometry lines and curves used to construct atom1 are extrapolated to construct atom2. Resulting parametric construction of two atom bond will be used to explain the role electromagnetism plays in strengthening bond of nuclear fields.

Thought processes for Wolfram Virtual Tech Conference Oct. 2020

I intend to break abstract into 3parts. 1) Constructing central force G-field curves, 2) constructing atoms, 3) bonding of nuclear fields.

Subject	**Wolfram Technology Conference Speaker Confirmation**
From	Wolfram Events Team
To	alexander@sandboxgeometry.com
Date	08/12/2020 22:10

Hello Alexander!

We are pleased to report that your talk has been selected for presentation at the virtual conference.

Please review the following important information regarding your participation at the event.

Subject	**Wolfram Technology Conference Speaker Confirmation**
From	Wolfram Events Team
To	alexander@sandboxgeometry.com
Date	09/03/2020 15:08

Hello Alexander!

We have finalized the Wolfram Technology Conference agenda. Your presentation is scheduled for:

DATE: Wednesday, October 7, 2020
TIME: 9:30AM
TITLE: Bonding Like Period Element Atoms Using Parametric Geometry and Z#

If anyone out there is attending, or know of in person network attending, please say hello and take a listen!

I promise 20 minutes well spent and long remembered!

I intend to join for the first time ever, using Parametric Geometry, the human knowledge base Quantum Small with Classic Big. It can be done and it will be done!   ALΣXANDΣR; CEO SAND BOX GEOMETRY LLC

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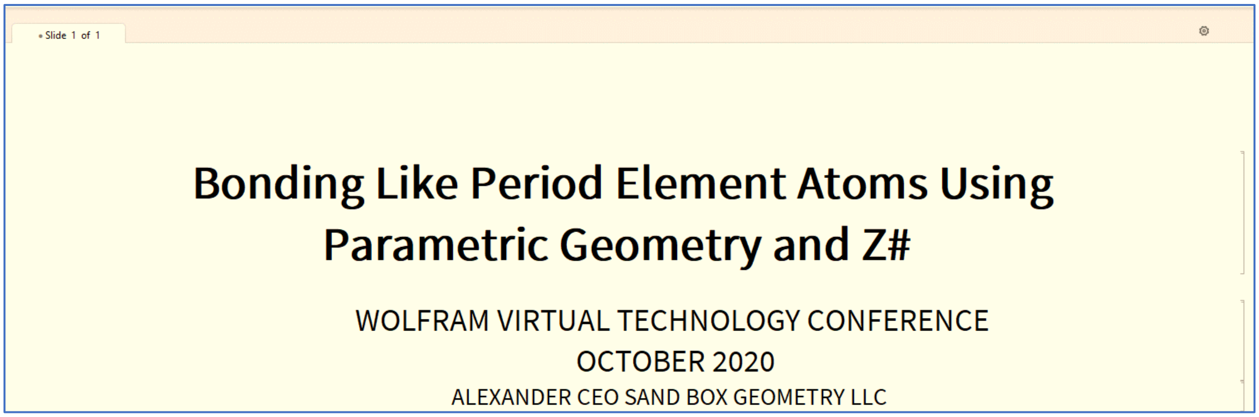
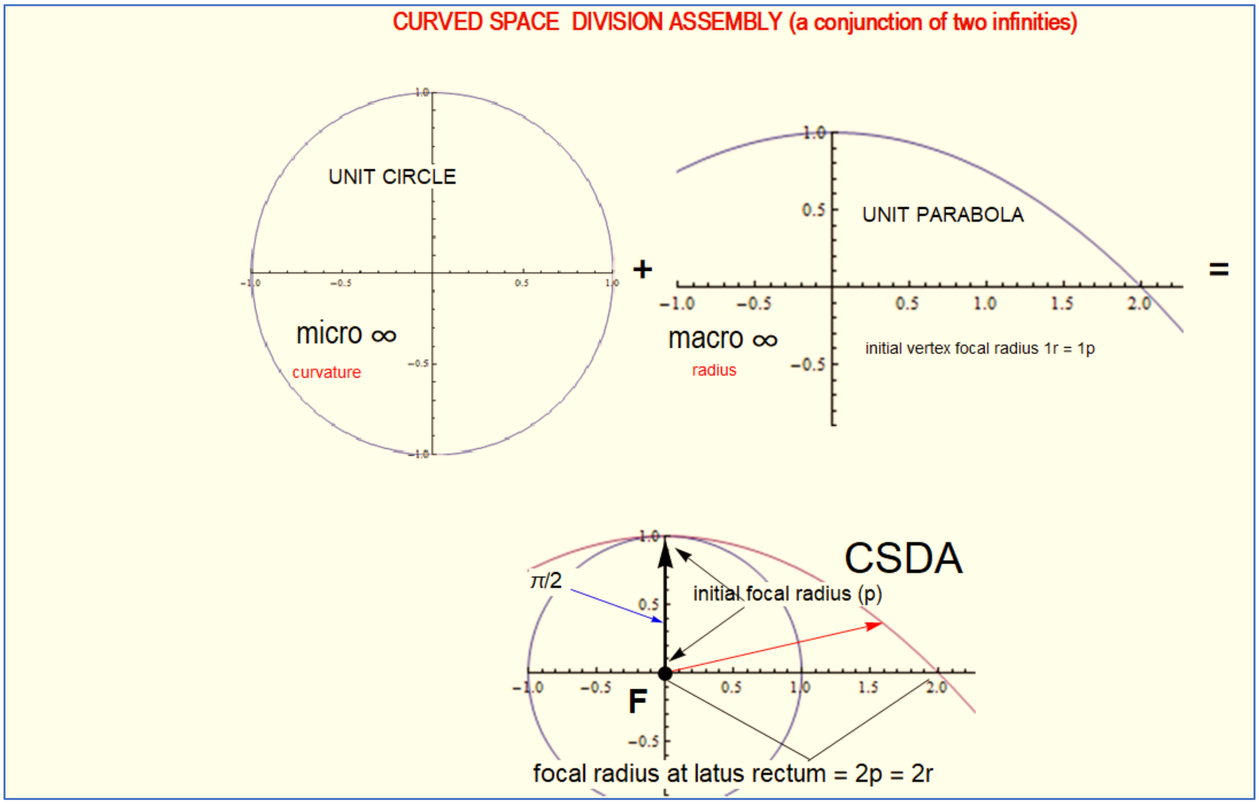
Slide 1.



Slide 2.



SLIDE 2:

Curved Space Division Assembly

I explore Central Force Curved Space using a Computer Based Mechanical Contrivance called a Curved Space Division Assembly.

- take code for the Unit Circle and add code for Unit Parabola and we have a parametric **CSDA**!
- What makes a **CSDA** perfect for shaping Central Force energy curves? The dependent curve initial focal radius (p)
- IS CONGRUENT with the $\left(\frac{\pi}{2}\right)$ $spin\ radius(r)$ of independent curve at INCEPTION.
- I CAN NOW track central force spherical happenings using a square space profile $\left(f\ (r)\right)$.

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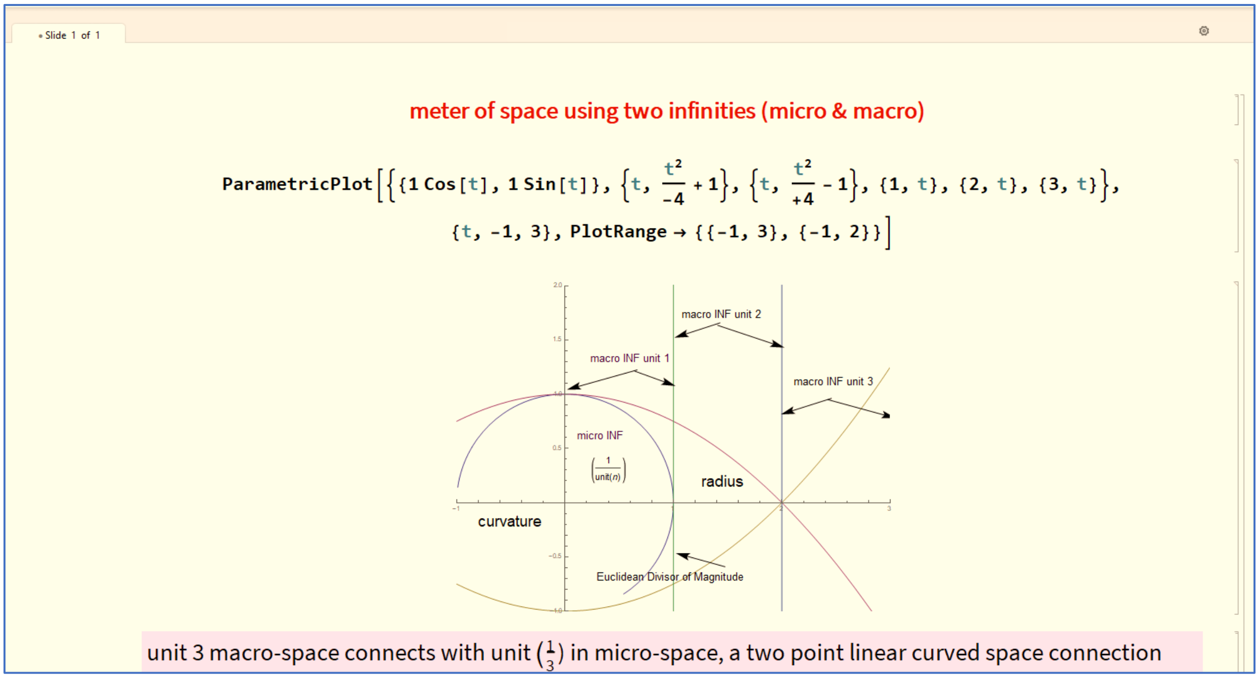
Slide 3.



SLIDE 3: counting with units of infinity

I realized early the unit circle could be population curvature. Beyond the circumferential boundary of curvature lay radii of curvature. This cooperative endeavor, produces a working central force **CSDA**. A mapping of central force energy exchanges between the fields we live with.

CAVEAT Thursday, October 22, 2020 2:19 AM

I realized today I have been working two distinct (**CSDA**), one for Classic **BIG** and one for Quantum **small**.

They clash in my presentation, subtly! I intend to complete work on this as record for my curtailed WTC 2020 presentation on October 7 and ‘flesh’ out the subtle means of counting I found in Central Force Curved Space and the units used by humans the last 5k years; our counting integers used to meter Square Space.

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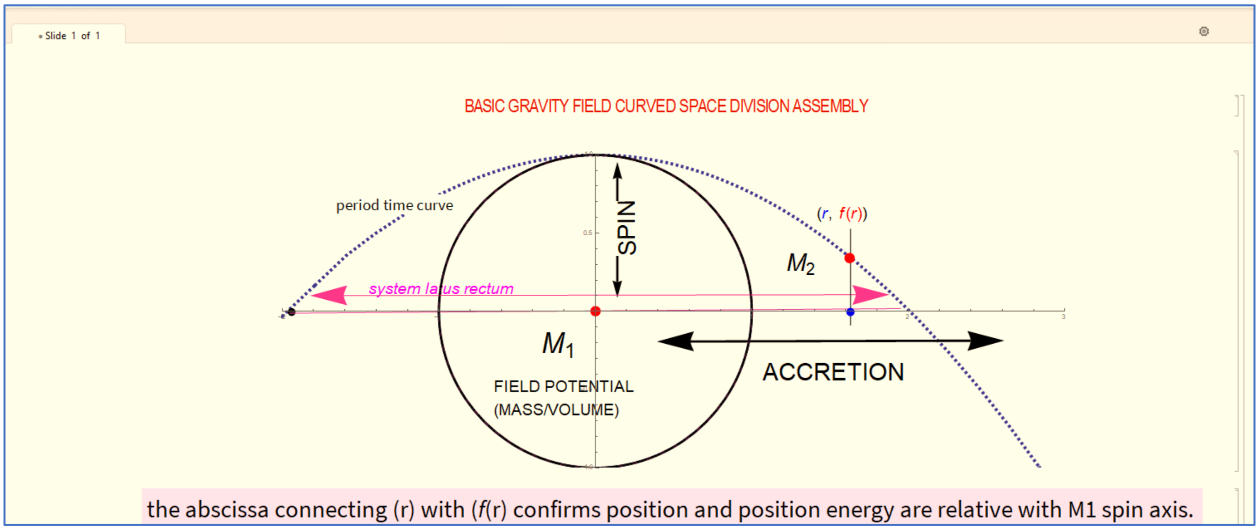
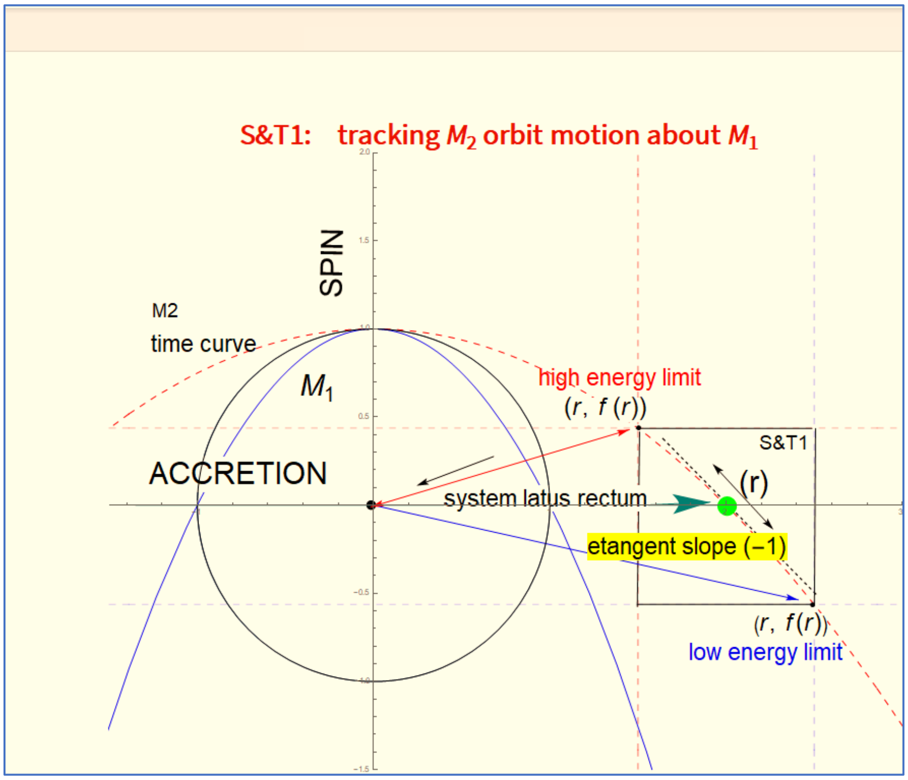
Slide 4.



SLIDE 4: this fits perfect a basic G-field orbital. $(r, f(r))$ for position, position energy. Sir Isaac 's displacement radius (r) and tracking displacement energy $(f(r))$ on the dependent period (energy/unit) time curve.

Slide 5. S&T 1; Space and Time Square One.



SLIDE 5: my first space time square.

S&T1 is what I use to analyze and construct massive G-field space curves. I use bookend position vectors to define energy limits of an orbit period. I use energy tangent slope to determine orbit velocity. The curved time diagonal has a complete history of orbit curvature

Geometry of Sir Isaac Newton's displacement radius has two variables $\left(r \text{ and } f(r)\right)$ giving us a 3-space calculus Cartesian profile (motion vectors Frenet). https://en.wikipedia.org/wiki/Frenet%E2%80%93Serret_formulas

- Unit Vector [***T***]: Let his square space displacement radius (r); be *a unit vector with* orbit direction & velocity (**T**), *into the paper with respect to* M_1
- Unit Vector [***B***]: Let system torque, Unit Vector [***B***], alter curved space motive energy $\left(f(r)\right)$ of displacement radius (r); *changing orbit curve & velocity with respect to M_1 metered with dynamic energy tangent slope.*
- Unit Vector [***N***]: *unit vector* (**N**) tail *is hooked to* displacement energy $\left(f(r)\right)$*; points to central force acceleration* M_1.

Slide 6. Building a S&T 1.

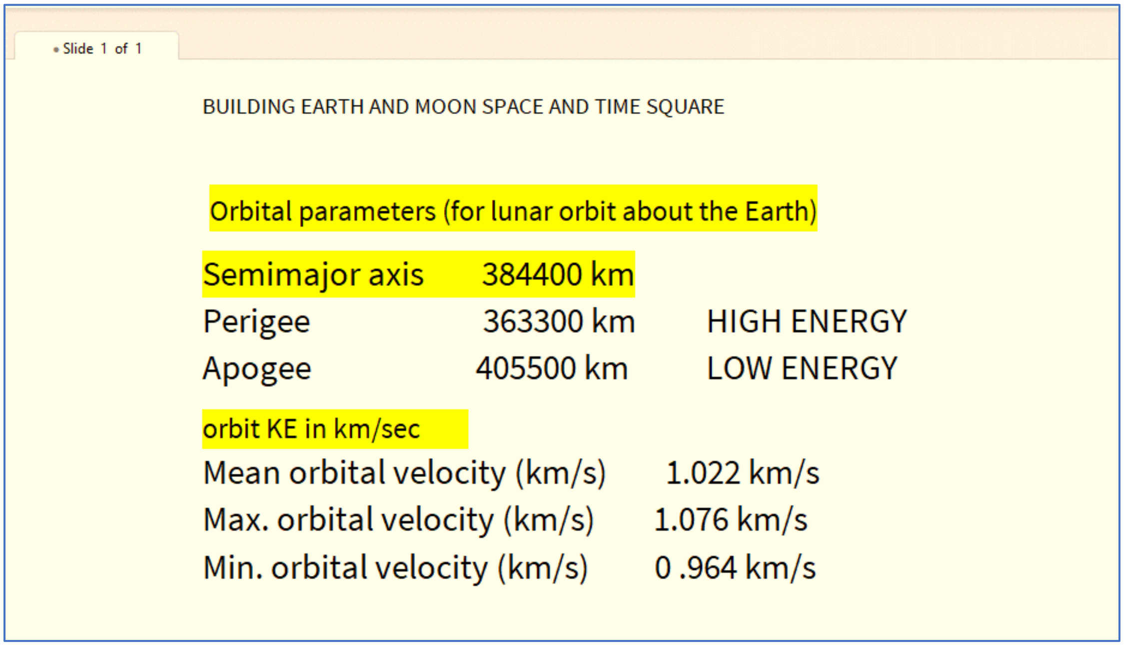


Figure 1: Data collected from NASA

SLIDE 6: let's build an earth moon space and time square.
I reference orbit curve limits as high energy and low energy, not perihelion/perigee and aphelion/apogee.

Slide 7. Converting square space meter into curved space metrics.

converting orbit parameter into CSDA unit meter

moon	NASAparameters	conversion	CSDA parameters
perigee	363 300	$\frac{363\,300}{384\,400} * 2$	1.8902
apogee	405 500	$\frac{405\,500}{384\,400} * 2$	2.1098
AVERAGE	384 400	$\frac{384\,400}{384\,400} * 2$	2
potential	$\left(r = p = \frac{aver}{2}\right)$	$\frac{384\,400/2}{384\,400/2} * 1$	1
f (p) (high e level)	20 521	□	0.1068
f (a) (low e level)	−21 680	□	−0.1128
focalradius (high e)	363 879	$2r - f(r)$	1.8932
focalradius (low e)	406 080	$2r - f(r)$	2.1128

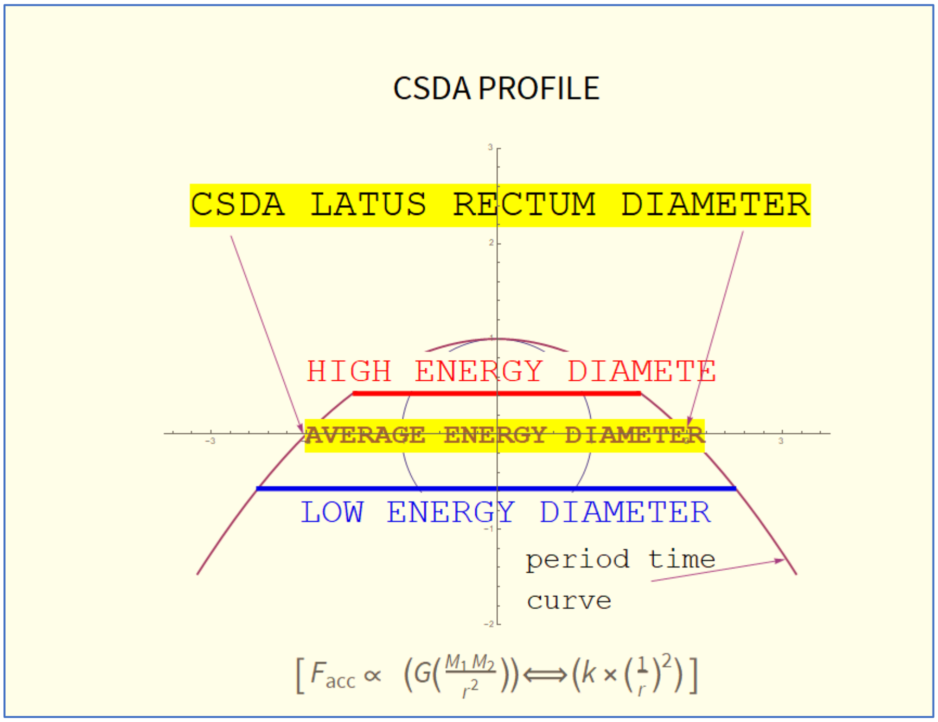
Slide 7.

FINDING ENERGY LEVEL: use dependent curve $\left(t, \frac{t^2}{-4p} + r\right)$ where dependent (t) goes to event radius (r) and (p) is initial focal radius. **CSDA** (p = r) always!

FINDING FOCAL MAG: (2p - f(r)): where 2(p) is diameter of potential curve and f (r) is event energy.

To construct motive energy curves; we need to convert square space kilometric parameters (green column) describing the orbit of our moon into unity ratios of a **CSDA** reference frame (orange column). The way to do this is use the average radius as denominator of all comparatives. Answers for **CSDA** comparative ratios will be returned when event parameters are set as numerators (yellow column). To standardize **CSDA** g-field comparatives concerning fixed $(M_1 M_2)$ potential and motion into a unity ratio system; multiply the independent potential curve properties by 1 and those properties belonging to the dependent orbit period parameters (M_2 event motive curves) by two.

Slide 8. On the significant impact of system Latus Rectum Diameter.



SLIDE 8: *latus rectum and Sir Isaac's universal law of G* all orbit curves are relative with the energy on the system latus rectum diameter. I use this basic displacement relativity (between M_1 and M_2) as fact to make a constant of proportion change to Sir Isaac Newton's Universal Law. I alter G field Law to use the latus rectum diameter average energy curve as M_2 orbit constant of proportionality.

SHAPE OF ENERGY CURVES USING SIR ISAAC NEWTON'S UNIVERSAL LAW OF G

A minor adjustment of Newton's Gfield Universal Law:

$$\left(Gfield\ Force\ Acceleration\ \propto G\left(\frac{M1 \times M2}{r^2}\right)\right)$$

Since M1 and M2 will be constant for a specific consideration as is (G), collect them together as the constant of proportionality. We can now say the motive energy curve shaping specific M2 motion is proportional to

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$(curvature^2 \times \ constant)\ :\left(\left(\frac{1}{r}\right)^2 \times C\right)^{-1}$ where C is constant of proportionality and M_1M_2 are specific cooperative between curvature as potential and radius of curvature is displacement.

SLIDE 8 continued: Inverse the result to convert curvature term (abstract number only) into a radius meter of orbit energy. I will show a suitable substitute for the constant of proportionality for our planet group is always the average energy curve of orbit, the Latus Rectum of a **CSDA**.

SHAPE OF ENERGY CURVES USING SIR ISAAC NEWTON'S UNIVERSAL LAW OF GRAVITY:

Numbers used are from Mercury data plate;

Ecurve	Focal r (position vector)	Event r
High e	1.6309	1.5887
Low e	2.4535	2.4113

SHAPE OF HIGH ENERGY MOTIVE CURVE

Using elementary potential motive mechanics: $(1.6309 - 1 = 0.6309)$.

Using Sir Isaac Newton's Universal G-field Law

$$\left(\left(\left(\frac{1}{1.5887}\right)^2 * 4\right)^{-1} \xrightarrow{yields} (0.6309\ unitenergyshape)\right)$$

LOW ENERGY LIMIT$(2.4535 - 1 = 1.4535)$

$$\left(\left(\left(\frac{1}{2.4113}\right)^2 * 4\right)^{-1} \xrightarrow{yields} (1.4535\ unitenergyshape)\right)$$

QED: ALΣXANDΣR, CEO SANDBOXGEOMETRY LLC

GeoGebra dynamic demonstration of basic central force energy exchange between M_1&M_2 orbit curves controlled by system Latus Rectum diameter.

https://www.geogebra.org/m/x9pfjdk2

All motive energy curves MUST make contact with Potential and Potential Range (*CURVED SPACE DIRECTRIX*) to remain a stable M_1M_2 orbit.

Slide 9. Construct high energy event tangent and motive energy curve following orbit motion $(f(r))$ for planet mars on **CSDA** time curve. (NASA data field Mars)

perihelion = $\left(\frac{206620000}{227925000}\right) \times 2 = 1.8131$; $\quad (f(r)) = 0.1782\ units$

aphelion; $\left(\frac{249230000}{227925000}\right) \times 2 = 2.1870 \quad (f(r)) = -0.1957\ units$

CONSTRUCT HIGH ENERGY MOTIVE CURVE OF MARS:

$(latus\ rectum\ focal\ radius) - (f(r)) - (potential\ energy\ curve)$

(2p-f(r)-1) = motive curve; $(2 - 0.1782 - 1) = 0.8218\ motive\ energy\ curve$

$$= \{0.8218 * \text{Cos}[t] + 1.8131, 0.8218 * \text{Sin}[t] + 0.1782\}$$

Computing dynamic energy tangent

$$\partial_t\left(\frac{t^2}{-4(1)} + 1\right) = -\frac{t}{2}(\text{where}(t) = 1.8131).$$

$$\text{Solve}\left[y - 0.1782 == \frac{-1.8131}{2}(x - 1.8131), y\right] \rightarrow$$

$\{\{y \rightarrow 0.1782 - 0.9065(-1.8131 + t)\}\}$; convert algebraic to parametric.

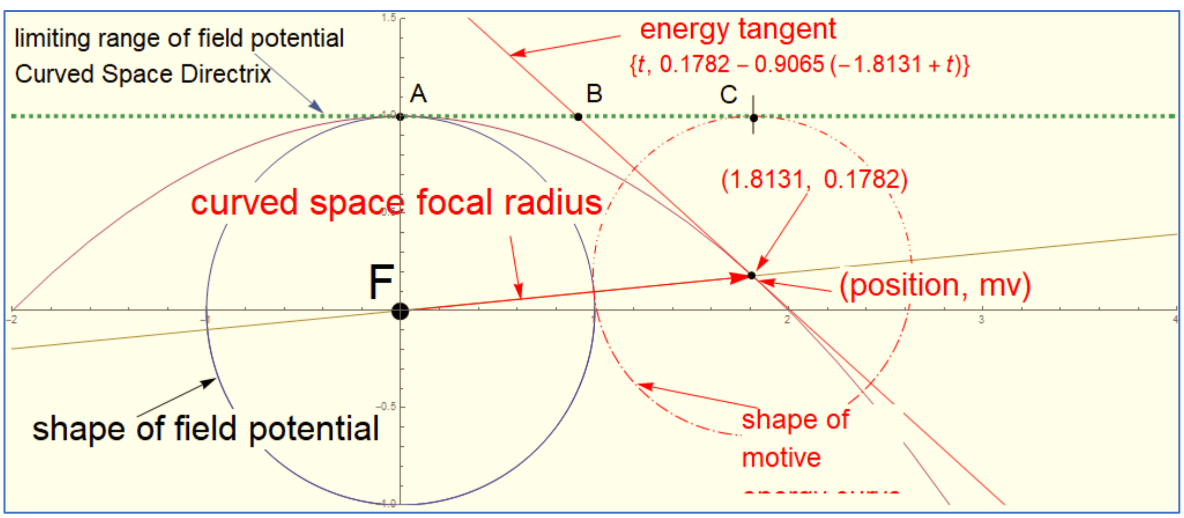


Figure 2: high energy motive tangent and motive energy curve planet Mars perihelion.

Slide 10. INSULATOR TANGENT and ORBIT ENERGY DISTRIBUTION

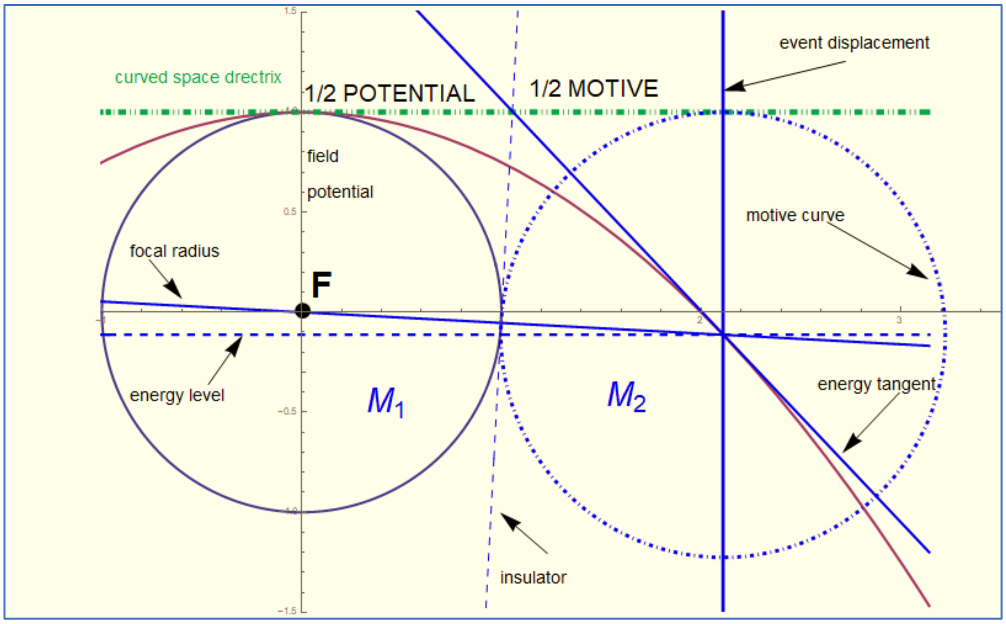


Figure 3: low energy parametric construction of insukator tangent and energy tangent intercept on curved space directrix splitting energy distribution as a zero-sum event.

Insulator tangents keep separate Gfield opposing forces of attraction and escape (constant and changing acceleration). Insulators seem to divide Curved Space Directrix into linear energy distribution, ½ to potential and ½ to motion (a degree 1 happening). Combining tangents (energy&insulator) will divide Gfield range energy distribution on the curved space directrix in half. Half to potential half to motion; demonstrating Kepler's equal area sweep per unit time constructed with plane geometry curves (a degree 2 happening).

SLIDE 11. INSULATOR TANGENT and CONSERVED ANGULAR MOMENTUM

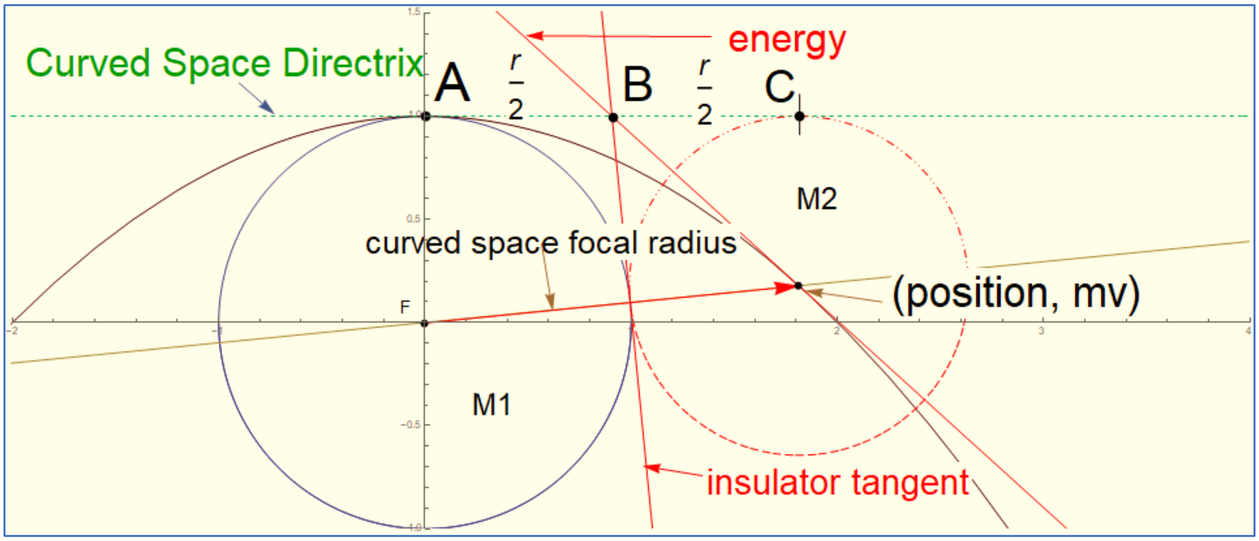


Figure 4: high energy insulator event. notice change in energy orbit curves. motive curves change shape to accomodate conserved angular momentum.

Linear energy distribution on curved space directrix seems to indicate shared equality showing half to potential, and half to motion. But this is a sourced zero-sum distribution property, as such, second degree *curved space* distribution geometry is equal once and only once, happening at the average energy diameter when e-tangent slope is (-1) producing two unity curves. Motive energy curves *change* shape to accommodate conserved angular momentum experienced by changing KE of orbit radii.

SLIDE 12. DYNAMIC PRESENTATION ORBIT MERCURY

https://www.geogebra.org/m/zk4g3wmw

SLIDE 13. LINES AND CURVES OF QUANTUM STRUCTURES

I wondered about constructing a dependent parabola within the unit circle. it fit perfectly within the electron cloud; legs balanced squarely on the rotation plane of the atom.

PLANTING AN INTERNAL DEPENDENT CURVE Z#2 He $\left(t, \frac{t^2}{-2} + 2\right)$

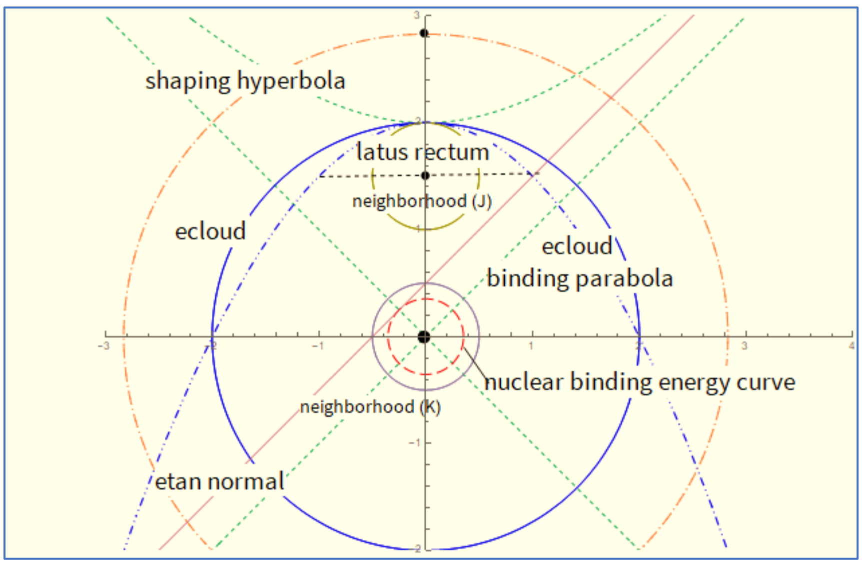
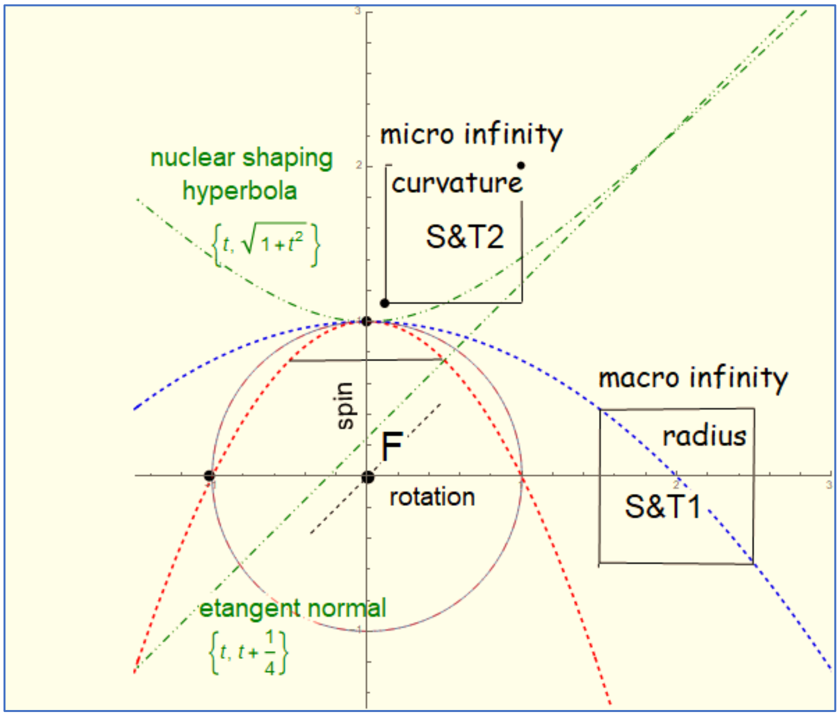


Figure 5: dependent time energy parbola curve placed within electron cloud of He. Lrgs planted firmly on accretion plane.

Nuclear standard models begin with the dependent curve placed within the independent system @ $\left(\frac{\pi}{2}\right)$ spin axis. Analytic geometry will provide focus, latus rectum, discover neighborhood of (p), designating where to lay our unity tangent and unity tangent normal, and make clear probable construction of the energy shape of our nuclear curved space using lines and curves of our second-degree square space parametric geometry.

SLIDE 14. TWO CSDA SYSTEM RELATIVE TIME SQUARES



EXPLORING S&T2

I work two system relative **CSDA** Space and Time Squares. S&T2 for micro infinity, realm of curvature (quantum small), and S&T1 for macro space radius of curvature (classic big). NOTE; two dependent parabola curves, one red and one blue, unify one spin and rotation axis for both infinities. S&T2 has two new curves. a first quad energy tangent normal and a nuclear shaping hyperbola. Shaping hyperbola squaring asymptotes locate nuclear center. These two curves, shaping hyperbola and etangent normal, are used extensively constructing electromagnetic bond.

SLIDE 15. MOTION? G-FIELD and QUANTUM MECHANICAL ENERGY

S&T1: G-field; orbits.
S&T2: Quantum ME? (thermodynamics nuclear change of state).

The only motive events perceivable to the human eye would have to be thermal energy signature of elements. Temperature changes of an element:

FUSION (cold) VAPORIZATION (hot)

SLIDE 16: LATENT HEAT, SENSIBLE HEAT, SATURATION; AND DEFINITIONS!

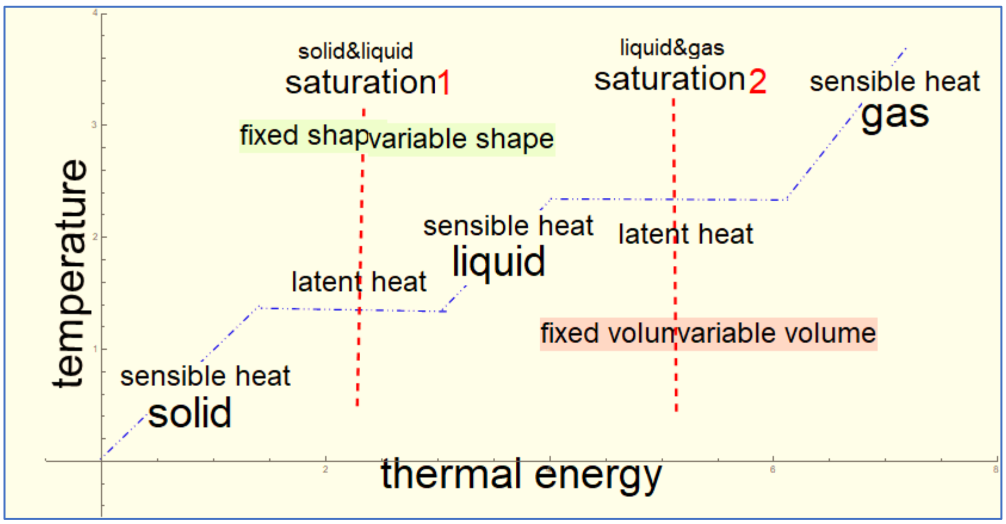


Figure 6: temperature and energy exploring plateaus of state of an Periodic Table Element

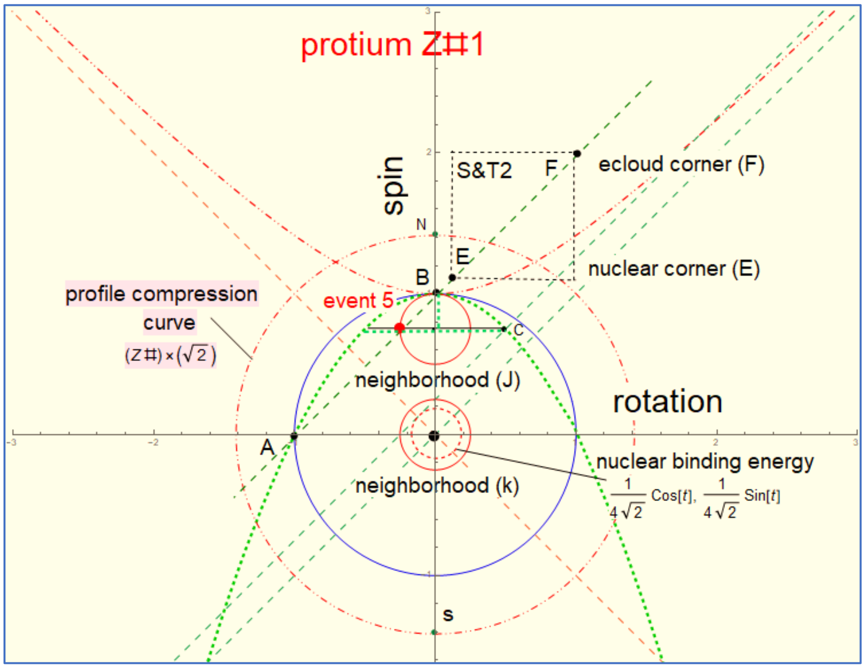
Bonding of two elements will require temperate cooperation. This slide defines terms I will use to monitor nuclear thermal happenings.

Sensible heat can be construed as an elementary step function of calculus. These are slopes of state solid and slopes of state liquid, slopes of state gas. <u>TO CLIMB OR FALL</u> 1-degree temp on slopes of state requires 1 calorie of thermal energy, in or out, to get it done.

Direct attention to both plateaus. From the beginning to end of either plateau thermal energy is still being absorbed or relinquished without change in Temperature. Flat line thermal energy activity is called latent heat. Latent heat cannot be sensed as it is energy required by the nucleus to leap the bounds of perceived state.

SLIDE 17:

EXPLORING S&T2; FUSION and VAPORIZATION (temperate environ and state)



S&T#2 has a linear diagonal connecting nuclear corner (E) with ecloud corner (F). This diagonal produced links nuclear rotation and spin with Quantum corners of S&T2.

- I use this colinear geography to meter nuclear latent heat happenings.
- Note event 5 happening on closed neighborhood (J) shaped with INITIAL FOCAL RADIUS (p), the parametric radius for neighborhood (J)
- I USE NEIGHBORHOOD (J) to sense latent heat intensity wracking the nuclear binding energy curve in (neighborhood K).
- J does so by reading thermal registration from rotation, spin, and quantum corners of S&T2, collected at event5. IF, all four registers, ROTATION, SPIN, NUCLEAR CORNER AND ECLOUD CORNER, read fusion or vaporization environ, this atom is transition ready to change phase.

A word about closed neighborhood (J&K) THEY are congruent. They're shaped with initial focal radius (p) of the ecloud binding parabola. Ecloud Binding Parabolas are open curves holding the electron cloud about the nuclear plane of rotation. THE RED CURVE in neighborhood (K) is a closed, Nuclear Binding Energy curve packing protons. Nuclear Split foci of the shaping hyperbola, one N and one S, conveniently provide the parametric radius $\left(Z\#(\sqrt{2})\right)$ to construct the spherical compression spin and rotation forces shaping an atom.

SLIDE 18. Hyperlink connection to first ever latent heat nuclear temperature activity at my GeoGebra account.

https://www.geogebra.org/m/jf2d5mkx

construct lithium latent heat thermometer

Let the heavy Teal line, with base (X), designates my lithium LHT. The thermometer is linear congruent twice with nuclear spin, each side of the liquid boundary separating solid and gas. Nuclear Thermal energy disturbance in neighborhood (K) will, move LHT's off nuclear center, along plane of rotation to ecloud limits (much the same as temperature will change volume column in liquid bulb thermometers) ... 1...WHEN MOVING across liquid phases, temperate stress on element population can be vapor or fusion. Latent Heat thermometers register this temperate stress ...2...SIGNALING when vibration and oscillation chaos of rotation, spin, and S&T2 quantum corners, are sufficient to transition perceived state for a SINGLE atom. ...3...

....THERE IS A ... 6TH COLINEAR EVENT. Nuclear stress hyperbola.

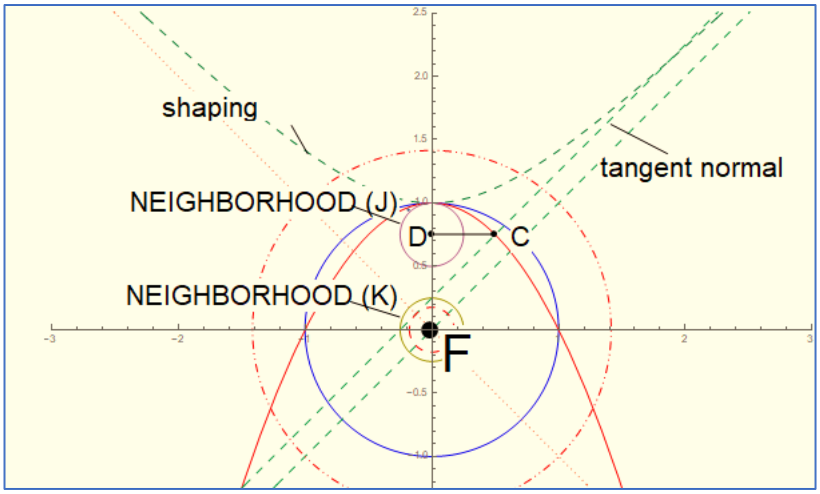
The STRESS HYPERBOLA ASYMPTOTE has an interesting intercept with nuclear LH thermometers: $\left(abscissa; \frac{Z\#}{Z\#-1}, ordinate\, \frac{Z\#^2}{Z\#-1}\right)$; for Li Z#3; coordinate of event (F) happens at $\left(a\,\frac{3}{2}; o\,\frac{9}{2}\right)$.

this sixth event orchestrates transition resonance of an element population, when ALL atoms of the collection read the same registration boundaries of fusion or vaporization, and experience nuclear stress asymptote INTERCEPT with their INTERNAL LH thermometer, THEN AND ONLY THEN, will the entire group population flip perception of state.

Why such concern with nuclear temperature? Let the temperate environ of this slide be 1750°K. I need to bond two lithium atoms. THE STRONGEST BOND ALIGNMENT IS SPIN. I need latent heat saturation event 2 happening between liquid and gas, cooled down to ≅1000°K. to precipitate and maintain double bond environ for two atoms, not the tumult violent chaos of gas.

SLIDE 19. NUCLEAR CONSTRUCTION PROTOCOL CONSTRUCT ATOM1:

All nuclear parameters source from protium as primitive for all standard models.



To begin any element construction, we need the binding parabola focus (D), closed neighborhood (J), and +latus rectum focal radius endpoint location (C).

coordinates of (C) will provide all needed information.

Find the first derivative for protium. $\left(\partial\left(\frac{t^2}{-1}+1\right)\right) \xrightarrow{yields} -2t$.

Every latus rectum chord meets curve loci with end point slope $(m = \pm 1)$. We want the 1st quad down etangent so set first derivative $(-2t)$ to (-1).

mmmm $\xrightarrow{yields} \left(\frac{1}{2}\right)$.

This is abscissa location of slope 1 energy tangent. Substitute into dependent term for ordinate. $\left(\frac{t^2}{-1}+1/.\,t \to \frac{1}{2}\right) \xrightarrow{yields} \frac{3}{4}$. Latus rectum endpoint for unity tangents is $\left(\frac{1}{2},\frac{3}{4}\right)$; and $\left(unit1\ spin\ radius - ordinate\ \left(\frac{3}{4}\right) = \left(p, \frac{1}{4}\right).\right)$

Construction parameters for Neighborhood (J): $\left(\frac{1}{4}Cos(t), \frac{1}{4}Sin(t)+\frac{3}{4}\right)$.

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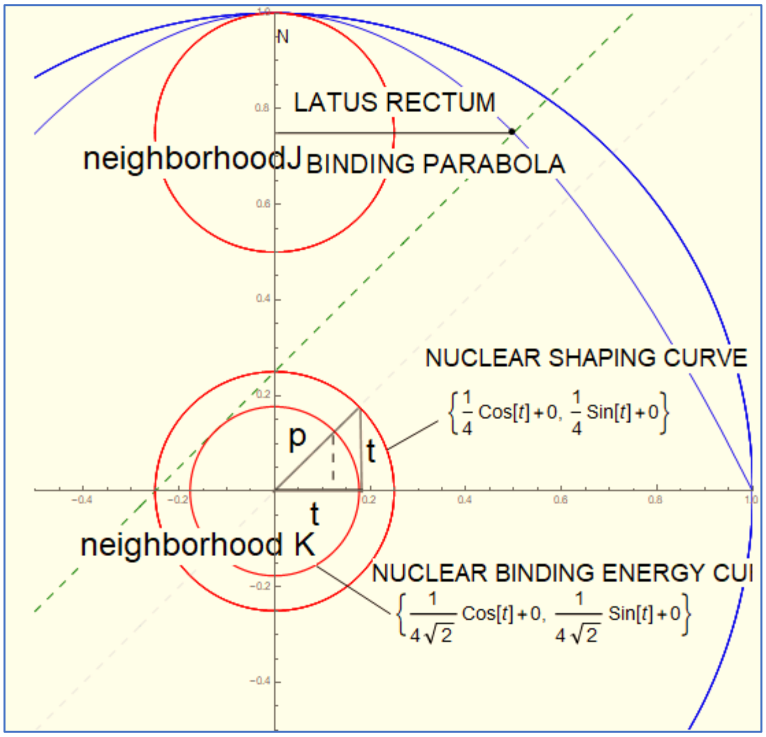
SLIDE 20. FINDING NUCLEAR CORNER of PROTIUM Z#1 S&T2 (1/8,9/8); (1, 2)



FINDING NUCLEAR CORNER of PROTIUM Z#1

ecloud corner is easy enough; (z# abscissa, and twice z# for ordinate). It is the nuclear corner we need do some analytic geometry.

1. Let ($\frac{1}{4}$) be initial focal radius for closed neighborhood (J). Then, shaping curve closed neighborhood (K) of nucleus will be congruent with neighborhood (J).

$\text{solve}\left(2t^2=\left(\frac{1}{4}\right)^2,t\right) = t = \frac{1}{4\sqrt{2}}$. Do same routine again with nuclear binding energy radius

nuclear corner S&T2 abscissa will be: 1/8

$(Z\# + abscissa)$ = (8/8 + 1/8) = 9/8. Parametric location of nuclear corner: $\left(\frac{1}{8},\frac{9}{8}\right)$.

SLIDE 21. CONSTRUCTING ATOM 1 (LI); Lithium (Z#3) and N BOND PLANE

Constructing Lithium Z#3

The construction parameters of all Period Elements are sourced from Protium. I use a table of protium meter to determine parameters for construction. Going from protium to lithium via table parameters.

You can confirm bond ring coordinates by setting shaping hyperbola equal to unity tangent normal.

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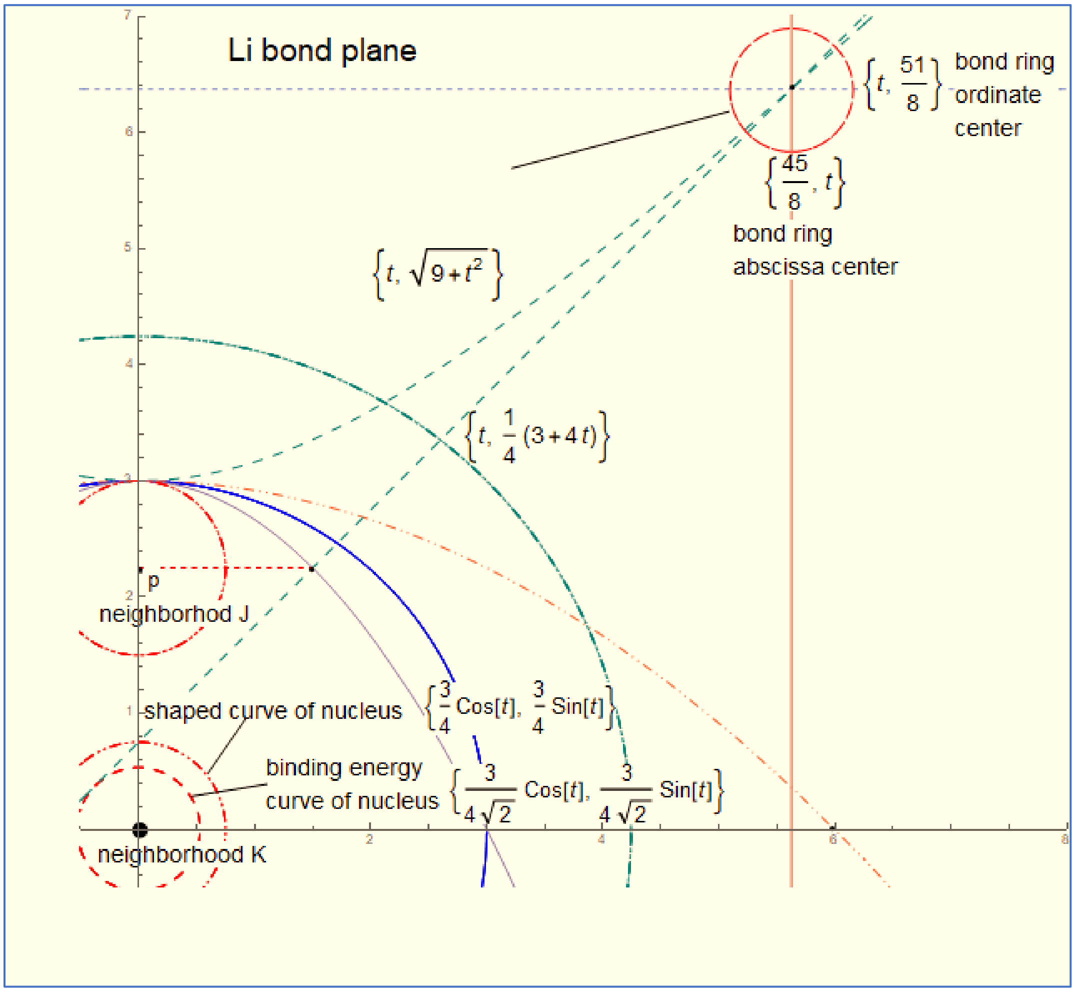
SLIDE 21 continued.



Z #	(p)	+LR endpt	spin	ncorner	ecloud	bond ring	nuclear bind e	shap hyp	□
1	$\frac{1}{4}$	$(\frac{1}{2}, \frac{3}{4})$	(0, 1)	$(\frac{1}{8}, \frac{9}{8})$	(1, 2)	$(\frac{15}{8}, \frac{17}{8})$	$\frac{1}{4\sqrt{2}}$	$(t, \sqrt{(Z\#)^2 + t^2})$	□
3	$\frac{3}{4}$	$(\frac{3}{2}, \frac{9}{4})$	(0, 3)	$(\frac{3}{8}, \frac{27}{8})$	(3, 6)	$(\frac{45}{8}, \frac{51}{8})$	$\frac{3}{4\sqrt{2}}$	$(t, \sqrt{9 + t^2})$	□
6	$(\frac{3}{2})$	$(3, \frac{9}{2})$	(0, 6)	$(\frac{3}{4}, \frac{27}{4})$	(6, 12)	$(\frac{45}{4}, \frac{51}{4})$	$\frac{3}{2\sqrt{2}}$	$(t, \sqrt{36 + t^2})$	□

Construct atom2 N of atom1; connection with bond plane (Li Z#3))

Determine nuclear center atom2:

Shaping hyperbolas act as springs of connect. If atom2 comes in to fast because of temperate chaos, hyperbola springs collapse and restoring energy pushes atom2 and 1 apart. Bond plane is minimal distance of two atom connect. Nuclear center atom 2 is twice ordinate of atom1 bond ring. $\left(\frac{45}{8},\frac{51}{8}\right)$.

Nuclear center atom2 (Li Z#3) $\left(\frac{51}{4}\right)$:

$$\{3\mathrm{Cos}[t],3\mathrm{Sin}[t]+51/4\}$$

Construct nuclear shaping curve atom2 (p = ¾):

$$\{3/4\,\mathrm{Cos}[t],3/4\,\mathrm{Sin}[t]+51/4\}$$

Construct nuclear binding energy curve for atom2:

$$\{\frac{3}{4\sqrt{2}}\mathrm{Cos}[t],\frac{3}{4\sqrt{2}}\mathrm{Sin}[t]+51/4\}$$

Construct shaping hyperbola atom2: shaping hyperbolas are $\left(t,\pm\sqrt{Z\#^2+t^2}+\frac{51}{4}\right)$. Note shaping hyperbola atom1 and atom2 intersect at bond ring as well as etangent normal of N and S neighborhoods of (p).

Atom2 is joined with atom1N bond plane.

electromagnetic phenomena of Atom1 bond with Atom2.

SLIDE 19: ELECTROMAGNETIC CONFIGURATION of BOND

A line in Quantum Parametric Geometry has width of an electron; joining two endpoints of charge $(+,-)$.

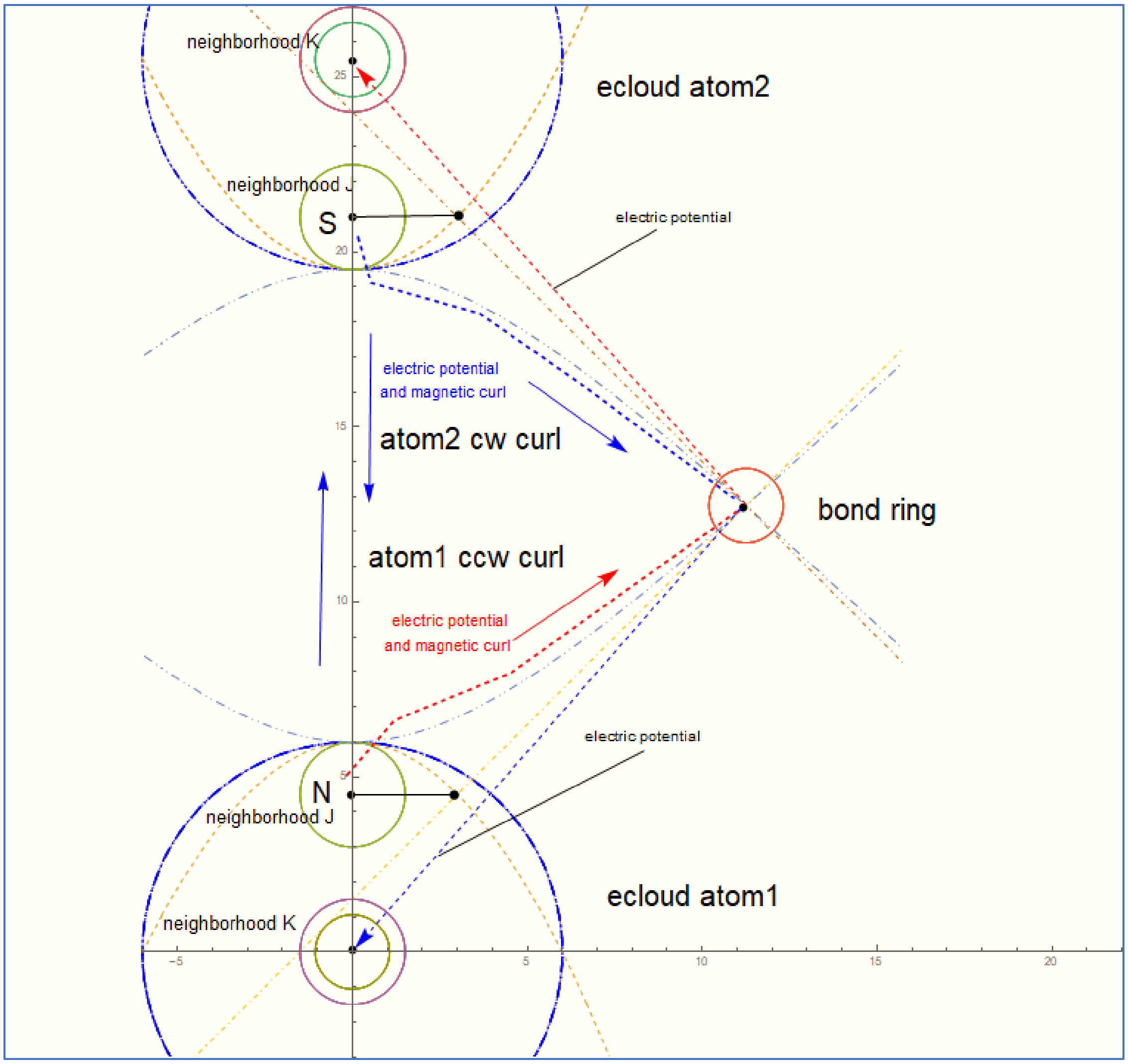
Let the ecloud have negative potential. As such we can imagine quantum electromagnetic potential as plasma filaments connecting $(+,-)$ end point charge between N neighborhood (p) of atom 1 red circuit partnership with nuclear binding energy curve (k) of atom2. Atom2 with atom1 circuit is blue.

Once bonded, Atom1 and atom2 potential use their shaping hyperbola to 'leave' ecloud space. The surface of bonded hyperbolic shaping curves are alive with potential, akin to a Vandegraff Generator. Atom1 and atom2 'connect' their shared potential across the bond ring, providing a quantum level conduit: (-) charge of electron cloud to $(+)$ of partner atom nucleus center *after* separating magnetism followers from electric filament properties in the bond ring.

Filament circuits carry 'current' phenomena. Consider elementary right-hand rule structuring magnetic field lines surrounding wire conductors. A nuclear right-hand thumb *does not* travel a filament profile path with potential but points toward terminal nuclear centers along the spin axis. Clockwise atom 2 toward atom 1, and counterclockwise atom 1 toward atom 2. When these north and south sourced magnetons meet in the bond ring they lock with N&S magnetic attraction and remain captured in bond ring as pure magnetism, becoming principal strength of bond, leaving $(-)$ potential of filament from electron cloud to connect with partnered atom (+) charge nucleus.

ALΣXANDΣR; CEO SAND BOX GEOMETRY LLC 11/2016

Magnetism is gripping phenomena of bond. The stripping of electricity and magnetism into a separate single entity they happen to be, provide a natural 'load' by doing work, producing heat, and in so doing prevent explosive property of direct contact of same charge or charge to 'ground' without load energy consumption.


neighborhood K
ecloud atom2
neighborhood J
S
electric potential
electric potential
and magnetic curl
atom2 cw curl
bond ring
atom1 ccw curl
electric potential
and magnetic curl
electric potential
N
neighborhood J
ecloud atom1
neighborhood K

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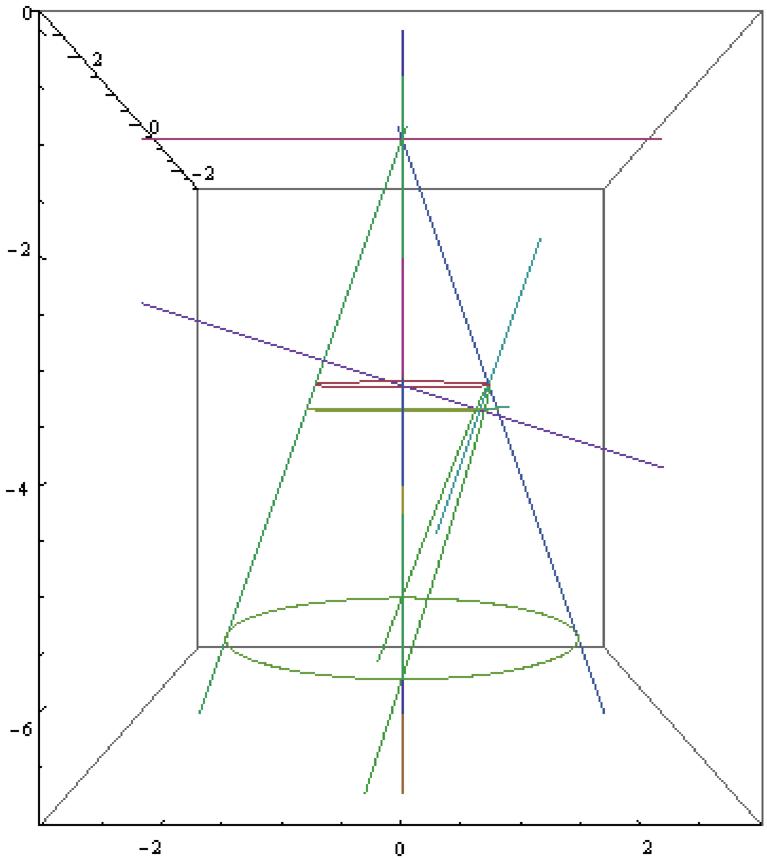
Using computer parametric geometry code to construct the focus of an Apollonian parabola section within a right cone.



"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.

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

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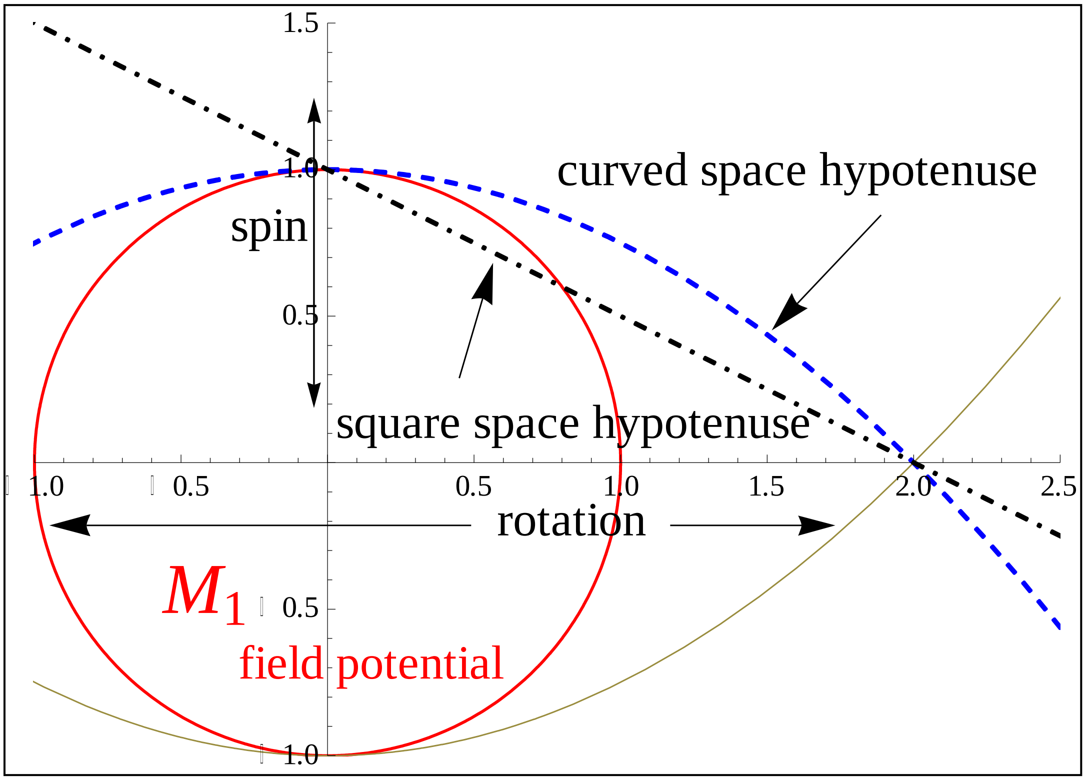
CAGE FREE THINKIN' FROM THE SAND BOX

The square space hypotenuse of Pythagoras is the secant connecting (π/2) spin radius (0, 1) with accretion point (2, 0). I will use the curved space hypotenuse, also connecting spin radius (π/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.

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