

PREMISES of CONSTRUCTING TWO CENTRAL FORCE ENERGY CURVES

Let a parametric geometry construction of central force energy curves be a Cartesian 3-space coordinates system. (x, y) rotate and (z) spins.

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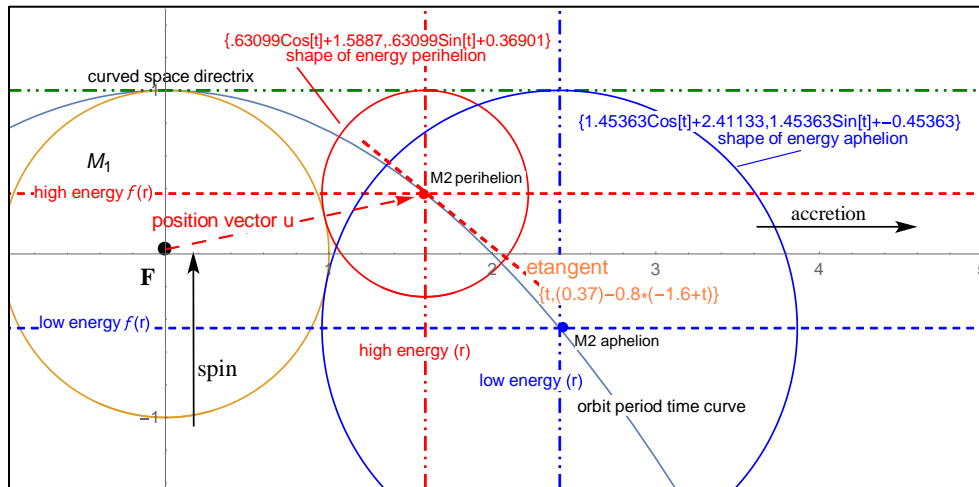
Constructing two
central force
mechanical energy
curves

2019

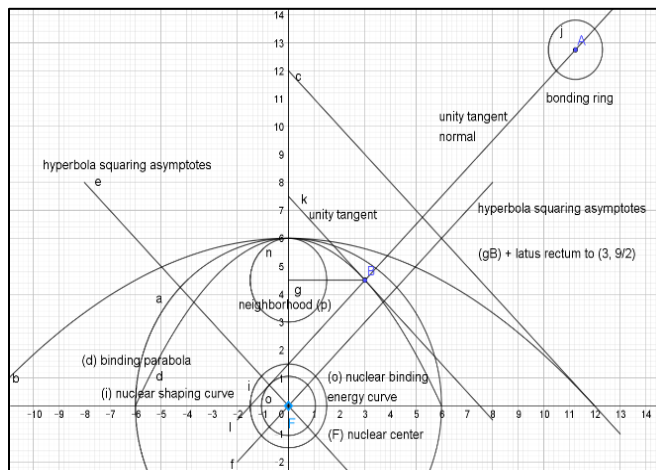
Motion is understood to be change in space per unit time. This works well for space-time in macro infinity. Especially G-field central force construction. We can see and study orbit periods. At the micro infinite nuclear level, vibratory motion of a periodic element can be made into a unit time record. Heat added or removed from a like population of a specific element will have two controlling operators, one mechanical and one physical. Heat will be tracked by counting mechanical (work) calories in or out. Physical temperature change is tracked per unit time. I will develop a standard model for both infinities. M1 central force energy curves discovery in macro infinity and nucleus central force energy curves discovery in micro infinity. Macro-space standard model motion is a limited period curve of specific length, $\frac{1}{2} M_2$ orbit period. Micro infinity will have only two islands of spin stable environ in the chaotic sea of latent heat. Two islands where sensible temporate heat maintain a semblance of state, surrounded by chaotic seas of unmeasurable latent heat phenomena. It's the same nuclear collection huddled as solid, liquid or gas; until latent heat metamorphosis alters the collective appearance.

Parametric
geometry of energy
curves in two
central force fields

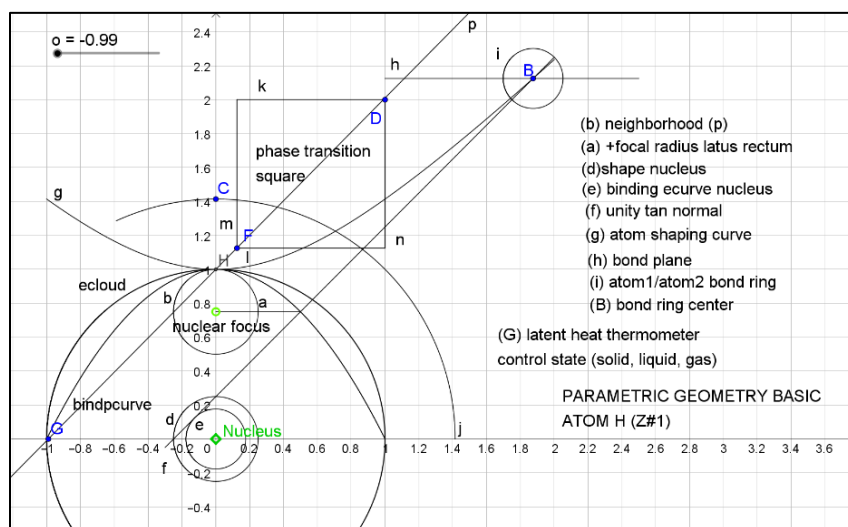
CSDA PARAMETRIC GEOMETRY CONSTRUCTIONS



(figure1)
G-field
mechanical
energy curves.
Page 3



(figure2)
Basic nuclear curves. Element is Carbon
(Z#6). Page 4



(figure3)
Nuclear standard model.
GeoGebra dynamic
geometry is active
demonstration of Latent
Heat phase/state
transitioning. Element is
hydrogen (Z#1). Page 4

G-field Mechanical Energy Curves

To construct mechanical energy curves of a M_1M_2 G-field central force configuration, let M_1 be the independent Unit Circle. Motive energy of M_2 can be constructed on the dependent Unit Parabola. Analysis of M_1M_2 period motion can now be done with

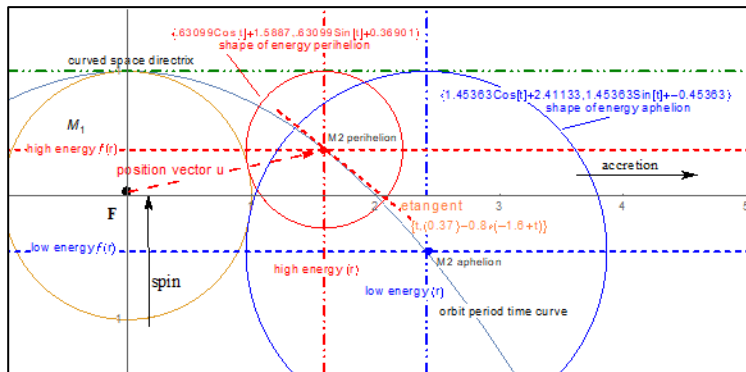


Figure 1: standard model analytics for G-field mechanical energy.

Ecurve (orbit curve Mercury)	Focal r (position vector Mercury)	Event r (orbit curve Mercury)
High e ($f(r) = 0.3690$) ordinate	1.6309 ($r, f(r)$)	1.5887 abscissa
Low e ($f(r) = -0.4536$) ordinate	2.4535 ($r, f(r)$)	2.4113 abscissa

SHAPE OF HIGH ENERGY MOTIVE CURVE:

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

Orbit velocity is geometry proportion:

$$\left(\frac{\text{slope 1event}}{\text{energy @ slope 1}} = \frac{\left(\frac{\text{focalradius}}{2}\right)^{-1}}{v} \right)$$

Using Sir Isaac Newton's Universal G-field

Law: $\left(G\text{field Force Acceleration} \propto G \left(\frac{M_1 \times M_2}{r^2} \right) \right)$

$$\left(\left(\frac{1}{1.5887} \right)^2 \times 4 \right)^{-1} = 0.6309$$

parametric description of motive e-curve perihelion: $\left\{ \begin{array}{l} .6310\text{Cos}[t] + 1.5887, \\ .6310\text{Sin}[t] + 0.3690 \end{array} \right\}$

position vector focal radii and accompanying energy tangents. System latus rectum diameter is average energy curve of M_1M_2 orbit period. Standard model number field for G-field operating curvature is between one and three with two being average energy diameter. Two is +end point for 1st quarter latus rectum radius observed.

I have two means to determine M_2 motive energy curves (M_1 is 1unit potential). One method is subtraction of (position vector $u - M_1$ radius).

The other method uses Sir Isaac Newton's Universal Law of Gravity. I take liberty by rolling $G(M_1M_2)$ into constant of proportionality (k).

THERMODYNAMIC QUANTA and NUCLEAR ENERGY CURVES

Nuclear standard models begin with the dependent parabola energy 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.

Dynamic motion geometry for nuclear mechanics is not as evident as G-field motive energy curves. The only motion we humans can sense is nuclear illumination signals (nuclear heat signature), as nuclear (vibratory) motion induced by heat (Q). Temperature experience has two levels. Sensible heat is meter of external environ. Unmeasurable Latent Heat exists at nuclear environs. Together they are responsible for phase/state of an element. Sensible heat links the two (latent Q) phase plateaus separating solid, liquid, and gas. Latent heat is necessary energy for nuclear leaps across the boundaries of phase/state. The atom is at required (Q, heat) vibration for transition waiting only for group *resonance* to reach flash-over conversion of group quasi saturation into state, be it solid, liquid, or gas. Absorption or release of Latent heat energy, brings the entire population sample vibration frequency, into group resonance

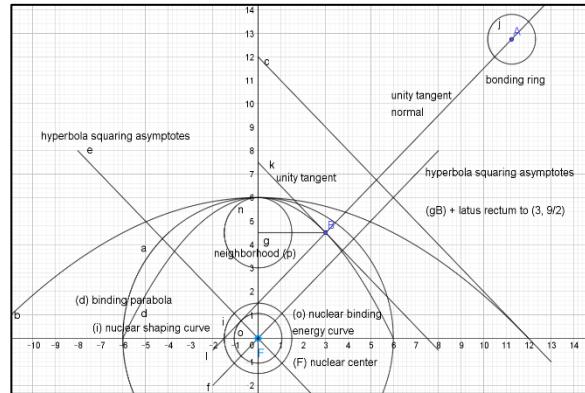


Figure 2: basic CSDA for nuclear curves

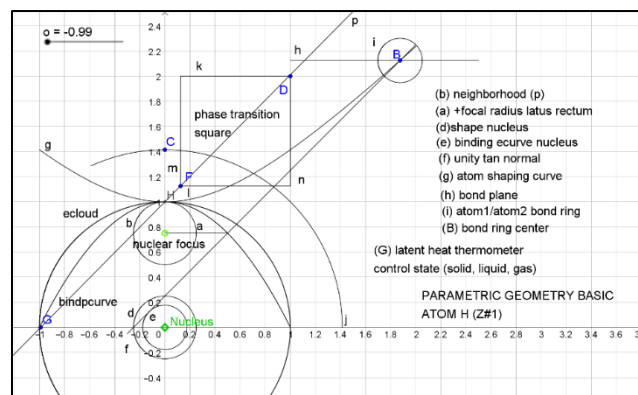


Figure 3: Sand Box Geometry nuclear CSDA with dynamic latent heat thermometer.

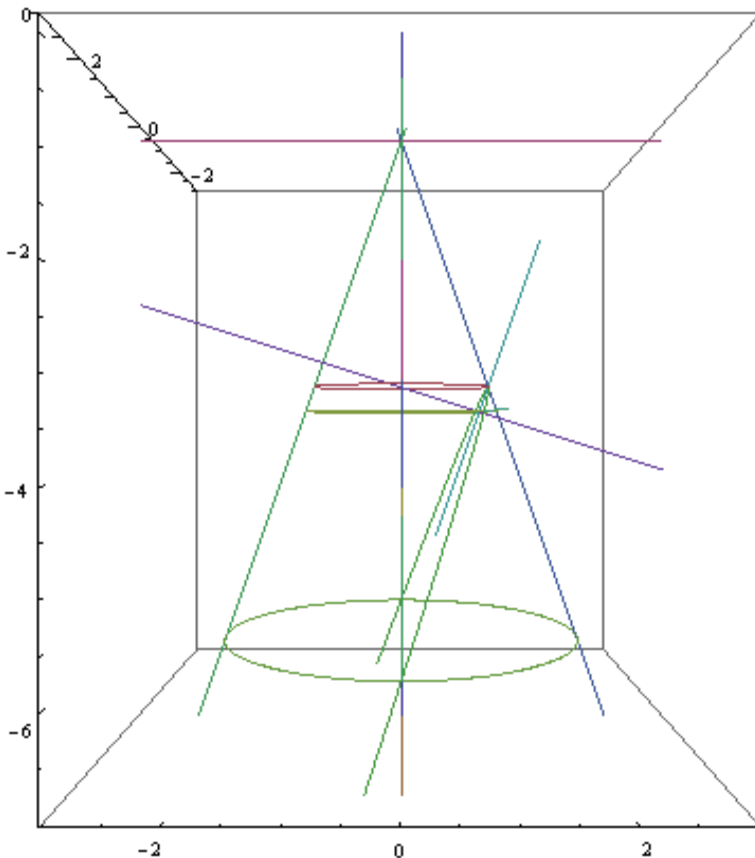
for transition. Latent heat energy input output controls state perception. Five collinear points must lay on latent heat thermometer for state transition. Then and only then, with group resonance completeness, can change of state for a given population occur. Once achieved, all members of the population will have identical spin vibration of group element heat signature, hot or cold; be it solid, liquid, or gas. A condition I call Nuclear State Relative, excluding plasma.

QED nuclear Space&Time Square: ALEXANDER, CEO
SANDBOXGEOMETRY LLC

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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.

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.

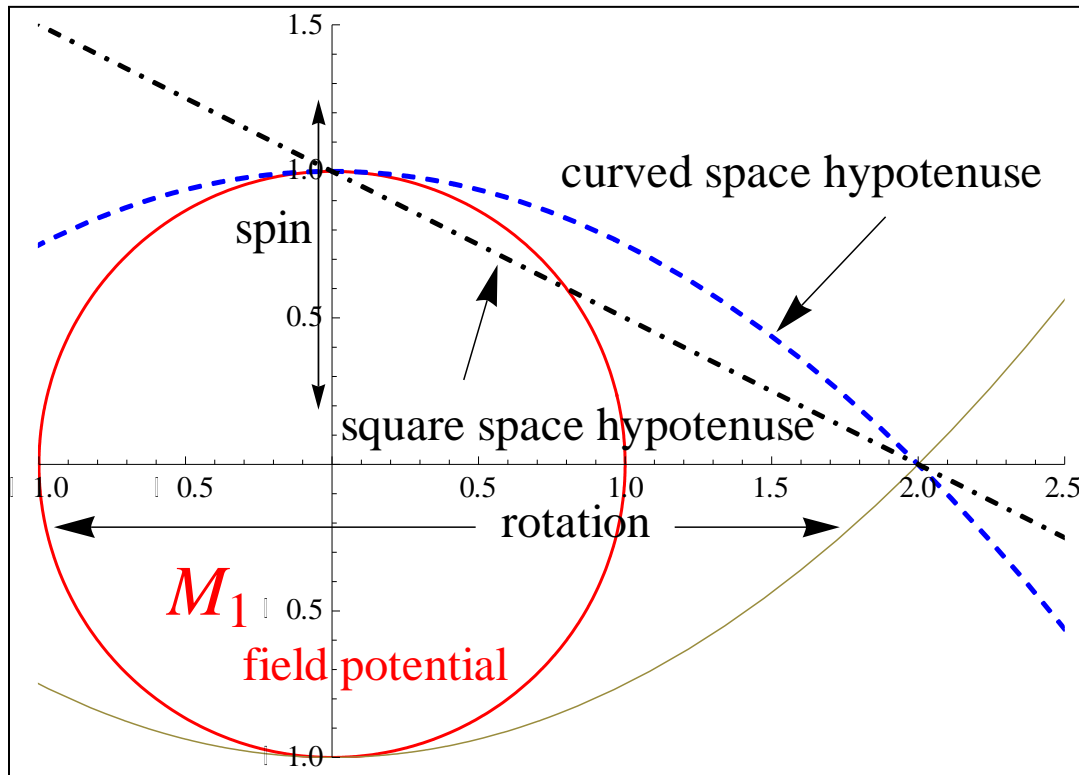


Figure 2: CSDA demonstration of a curved space hypotenuse and a square space hypotenuse together.

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 with respect to north of solar spin.

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