Wolfram Virtual Technology Conference 2020 Critique

WTC 2020

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Some thought of a participant

CBM education

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Critique Virtual WTC 2020

Amazing complicated research engine!

Definitely for the erudite, super minds among us!

Not for the computer-based math project to change worldwide education paradigms!

CBM part of Wolfram Research still spinning wheels without traction. If just once, this Wolfram purview would offer a concrete example of HOW to change a foundation part of math education, would help to see their passion. Same dialogue as 2011!

An example: the right triangle of Pythagoras, definitely a first brick civilization builder! What would you change presenting this master plan to 21st century young'uns?

Dynamic representation of a static right triangle won't be any different from any other dynamic of two competitive education CBM platforms, GeoGebra and Texas Instrument *n*-Spire.

Let me suggest my exploration of G-field mechanical energy curves using Frenets' vector calculus and HS level Sand Box Geometry **'Curved Space Division Assembly'** independent and dependent curve cooperative explanatory.

- Change the hypotenuse to a position vector. Embed unit vector **T** @ position vector head, into the paper with direction and velocity.
- let the position vector tail source from acceleration potential M_1. Embed unit vector **N** into the position vector pointing out M_1.
- Using the dependent **CSDA** period time curve, let dynamic energy tangent following $\left(f\ (r)\right)$ be torque changing orbit energy curve, embed unit vector **B** into energy tangent.

If we demonstrate all this differential geometry with dynamic CBM we show how a dynamic hypotenuse changes the real world of G-field mechanics. Use

subtraction (position vector magnitude – unit one potential curve) to parametrize shape of motive energy curve and create dynamics of changing energy and real-time orbit curvature. Visit my GeoGebra Cloud to see dynamics (dynamic orbit energy curves of Frenet).

https://www.geogebra.org/m/c9rvev9h

the following information may be needed depending on where you happen to enter GeoGebra Cloud.

https://www.geogebra.org/u/apollonius

Enter E8ZCZ on www.geogebra.org/groups to join.
https://www.geogebra.org/u/apollonius

Now tell the young'uns to forget all that. Take 'em back to Thales Theorem. Set a position vector tail at center of circle diameter. Let the head point to the right triangle vertex. Over lay this construction onto a **CSDA**. Make the head vector dynamic following dependent parabola curve changing loci.

As the position vector head moves on **CSDA** time curve, changing orbit diameters and orbit curves, happen with respect to central force **F**.

See my demo!

https://www.geogebra.org/m/w48wdh4h

2300 years ago the ancient ones had it! Some imagination. Long Dead still works!!

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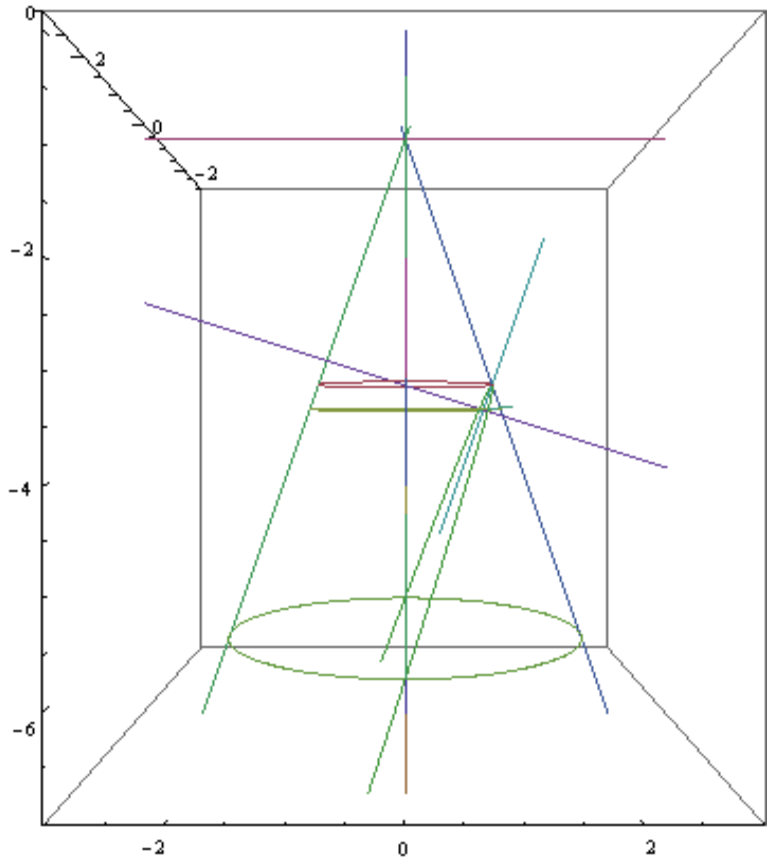
ALΣXANDΣR; CEO SAND BOX GEOMETRY LLCOPYRIGHT ORIGINAL GEOMETRY BY Sand Box Geometry LLC, a company dedicated to utility of Ancient Greek Geometry in pursuing exploration and discovery of Central Force Field Curves.

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.

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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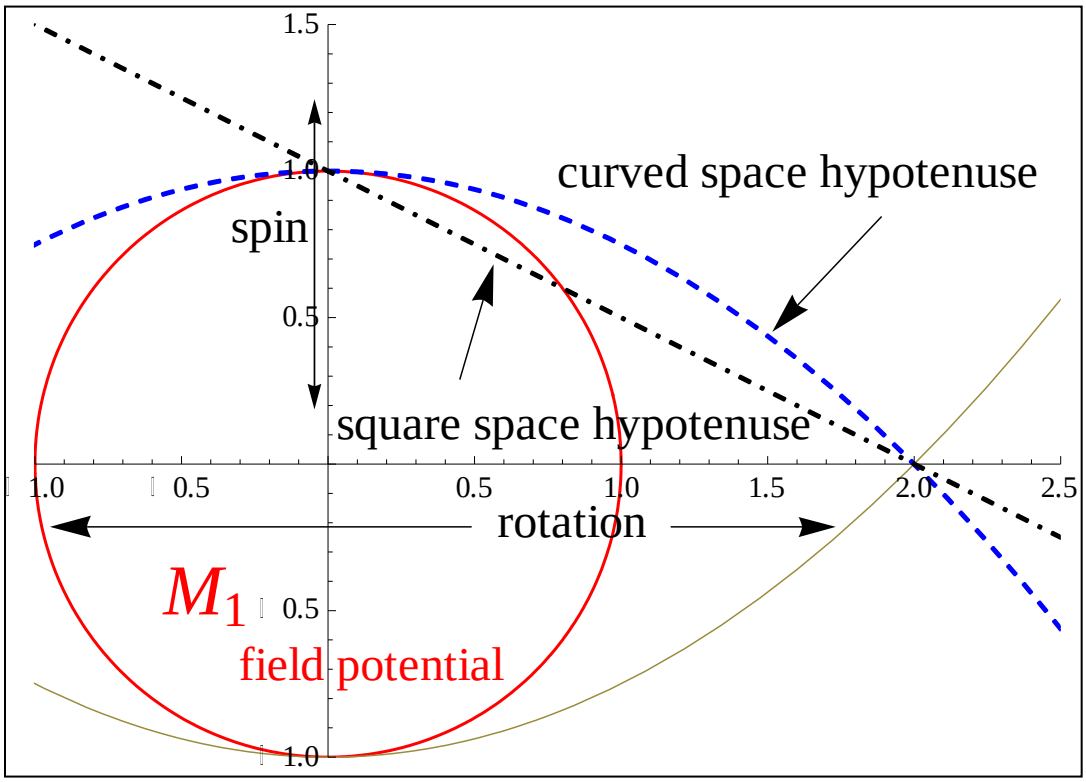
CAGE FREE THINKIN' FROM THE SAND BOX

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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