The Unification of Mass and Energy is Motion
By
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<u>Abstract</u>

Einstein's equation defines the universe as an infinitely stable system without a beginning or an end. It always was and will always be.

Math is the language. Math is unambiguous. Math provides indisputable results. Einstein's system of equations $|E| = |M| * (c * c)$ is mathematically resolvable.

Einstein's formula is perfection. Our math is not. I propose there is a way to express mathematically the unique properties of Zero and Infinity. Furthermore, the mathematical properties that link Zero to Infinity will generate a closed system that precisely details the process of creation.

All current theories of creation begin with a singularity. The concept of a singularity is due to mathematical conditions that yield UNDEFINED answers. Get rid of UNDEFINED and the math and corresponding understanding of how the universe works will forever change.

This paper eliminates the UNKNOWN. As a result, everything can be KNOWN.

Restating Einstein's formula and accounting for the singularity start of everything, $|EM| = C^2$. This paper will prove that starting the creation with a unitary God particle will always resolve itself to 1. The system will never advance.

Furthermore, the paper will prove that $|E| = |M| * C^2$ yields a closed system.

The ramifications are that we have the tools to measure, the knowledge to model, but not the complete math to explain it.

The math will show that the universe and everything in it must have started from a binary system consisting of pure energy and pure mass.

Everything must exist in pairs.

Therefore, E and M must coexist in every dimension, and is always constant.

The missing ingredient needed to progress from the zero dimension to the first dimension is MOTION.

MOTION only happens in pairs.

PROOF

To expand the current math to accommodate the duality of zero and infinity, we introduce the following relationship:

$|0| = +0 -0$

+0 and -0 are mirror images of each other.

The notion of absolute value binds the duality of nature to a single process.

Pure mass $|M|$ has zero motion. Absolute darkness.
Pure energy $|E|$ has infinite motion. Absolute brightness.
C = the speed of light. C is the universal constant and serves as a limit. Constants have no need for absolute value. The speed of light is the same everywhere.

$|M| = +0$.
$|E| = |-0|$.

The origin is represented by (-0, +0)

We define a mathematical construct called an interaction. An interaction means a given relationship holds for all basic mathematical functions (addition, subtraction, multiplication, division, and exponential).

$|-0|$ interacts with $|+0] = |i|$ where i = infinity

Infinity must also adhere to the rules of pairs, +i and -i.

$|+i|$ interacts with $|-i| = |0|$

The mathematical rules that bind zero and infinity:
$|0|^{|i|} = |i|$ INFINITE EXPANSION
$|i|^{|0|} = |0|$ INFINITE COMPRESSION

$|E| = |M| * c^{(d+1)}$ where d= dimension
In dimension $|0|$:
$|E| = |M| * c^0$

In dimension $|1|$
$|E| = |M| * C^{|2|}$
In dimension $|i|$
$[E] = [M] * C^{|i|}$

A single relationship that lasts forever.

Einstein's formula predicts the duality of nature and the infinite nature of the universe.

If duality does not exist, then $|[EM]| * c^{(d+1)}$ where d= dimension

In the zero dimension,
$|[EM]|^0 = c^1$
$|[EM]|^0 = c$ Nothing will ever happen
$C^i = i$ It goes on forever.

The D_3 and by extension us, cannot exist otherwise.

QED

The Duality of Nature and the Order of Creation

Nature is a constructive process; we start from +0 progress to +i
Nature is a destructive process: we start from -0 and progress to -i
|0| is infinite, |d| is finite.

The concept of measurement does not exist in D_0.
Light does not appear until D_1.

Nothing can travel faster than the speed of light.
Time travel is not possible.

What follows is a description of the process.
One process that universally describes everything we know.
One process that begins at |0| and ends at |i|.
One closed process.

Observations and Predictions

Stability exists at every dimension, including the zero dimension (-0, +0).

The fundamental rule of science should be re-written to "Nothing cannot be created nor destroyed. Nothing simply is."

The fundamental question we should be asking is, how do pure energy and pure matter co-exist. MOTION keeps them apart. And MOTION brings them together.

$|D_{1 \text{ to } i}|$ objects have mass. They can be measured. Each D_i requires x+1 particles to be measured. Therefore, we can never observe D_0.

The duality of everything begins with the interaction of something that does not move with something that does. The interaction must be stable, and the resulting product of that interaction must also be stable. The result of the interaction between pure energy and pure mass is the first dimension (+1 -1) of an infinite supply of unique and discrete 1-dimensional dots.

The first measurable mass comes into existence in the $|D_{1|}$. Every mass in $|D_{1|}$ is discrete. The speed of light is constant, but is not measurable until the first dimension. Pure light has mass.

The first transformation between +0 and -0 releases nothing. It simply spawns infinite particles each with a different brightness. The brightness is a function of the ratio (UD_x or universal density) between $|E_x|$ and $|M_x|$.

$F(|UD_0|) = 0$
$F(|UD_1|) = 1$
Where $|x|>|1|$, then $F(|UD_x|) = f(|UD_{x-1}|) + f(|UD_{x-2}|)$

Where UD is Universal Density, and UD_x is constant.

This is the Fibonacci sequence. This sequence follows natural law and is consistent with the duality of everything. You must assume that |0| and |1| exist to move forward. If only 1

dimension exists (singularity), the sequence stops. Again, evidence that everything starts with 2 of something!

$|D_1|$ particles have mass. Hence, they can be measured.

A $|D_1|$ particle is a hole. A hole is the most elemental object we can observe. Each $|D_1|$ particle differs in density (ratio of pure mass to pure energy).

Since each $|D_1|$ particle has energy, every particle is in MOTION. Let there be infinite light AND infinite darkness.

Positive dimensions are unable to interact with negative dimensions.

Combinations of $|D_1|$ holes (singularity) that when combined result in a $UD_1 = 1$ will return to their individual zero-dimensional state.

Combinations of $|D_1|$ holes with $|UD_1| > 1$ will merge with each other to form a pair of $|D_2|$ planes and $|D_2|$ holes and a new $|D_1|$ hole.

Combinations of $|D_1|$ holes with $|UD_1| < 1$ will merge and form a new $|D_1|$ hole.

$|D_2|$ planes interact to create $|D_3|$ spheres and follow the same process. The process continues for $|i|$.

The $+D_2$ white hole will shrink and the $-D_2$ black hole will expand as each higher dimension is created. Each $|D_2|$ hole is bridged to the corresponding $|D_1|$ hole.

Every dimension has exponentially increased density.

The system and math also explain why some quantum particles appear to phase in and out. Those quantum particles are only 1 dimensional. The only movement possible is to promote or fail. The life expectancy of a D_1 particle is infinitely short. Light is produced by the promotion from D_0 to D_1. Light must have mass to be measured.

How did we come into being? From 2 simultaneous BIG EVENTS that must converge.

In the + dimension, creation begins with expansion and ends in a crunch.
In the – dimension, creation begins with a crunch and ends in an expansion.

Identical rules govern each process.

Recent measurements showed the expansion slowing. The math predicted this observation. At UD_{50}, the process begins to reverse on itself. Until it reaches the initial state of stability UD_0.

Our time is finite. Therefore, time is measurable. The unit of measure is what changes from dimension to dimension.

Background 'radiation' is the flash of energy that is transformed into light. Therefore, light has mass.

Math accurately models the creation process. If we had the right tools, we would be able to detect all forms of matter. There is no such thing as dark matter. Everything in our dimension emits a light.

It's About Time!

$[E^d]/[M^d] = c^{d+1}$ defines the Universal Density and is represented by the Fibonacci function.

Then it stands to reason that $[M^d]/[E^d] = 1 / c^{d+1}$ is represented by the 1 / Fibonacci function or

$F(|UT_0|) = 0$
$F(|UT_1|) = 1$
Where $|x| > |1|$, then $F(|UT_x|) = f(|UT_{x-1}|) + f(|UT_{x-2}|)$

Where UT is Universal Time, and UT_x is constant. MOTION is what binds each dimension to each other. MOTION gives rise to time. In d_0 M_0 has no motion and E_0 has infinite motion.

$MOTION = \Delta UT$.

$|\Delta UT_{(dx,dx)}| = |UT_{dx}| - |UT_{dx}| = 0$

$|\Delta UT_{(dx, dy)}| = |UT_{dx}| - |UT_{dy}|$

Universal time can be calculated for each dimension. Only ΔUT can be measured.

Therefore, motion, and by extension ΔUT can only exist between dimensions. $\Delta UT_{(dx,dy)}$ will a constant for each d_x, d_y pair.

Conclusions

If an error term exists, there are only two possible reasons- not precise measurements, or not an accurate model.

The next step is to re-evaluate all models with these new constraints and see the results.

The Nature of God

ZERO

At the beginning. Nothing

Existence required raw materials. Let there be energy and light. God created everything.

Existence requires rules. $|E| = |M| C^2$ God wrote the rules.

The commandments must be known by all. The language is math. God gave us the commandments.

Rules must always be in force. There are limits. God is the ruler of the universe.

Rules apply to everything. There are no exceptions. God is all watching.

Rules cannot be changed. There are no exceptions. God's can influence nothing.

The system must be perpetual. There is no beginning and no end. God is infinite.

The rules are absolute. There can be no ambiguity. Gods' authority is absolute.

At the end. Everything.

INFINITY

And for that we should all give thanks.