

The Day After the “Nightmare Scenario”

Scott S Gordon
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Sunrise: The Component Fundamental Building Block

Theoretical physicists are in the midst of a nightmare. General relativity and quantum theory are the tried and true theories that have been around for over 100 years and yet remain incompatible with each other. It should be obvious by now that if it was possible to unite them under one theory using the scientific method and/or by deriving a solution from our “old math” (current knowledge), it would have been done by now.

A new proposal utilizing new math representing a new foundation is poised to rebuild the entire field of physics from the bottom up. If deriving an answer from our current math is not possible, then this new idea must start in unfamiliar mathematical territory.¹ In addition, whatever new math is proposed, it must derive our known math that represents our current knowledge of physics.

The new math starts by expressing the properties of a component building block ingredient. This ingredient along with energy is the only ingredient required to build our universe and everything in it, starting with the building of spacetime itself. The new math must be simple because the universe starts with one basic ingredient which builds in complexity. The more complex the structures in the universe become, the more complex the math required to describe it.

In determining what the component building block ingredient is, we should consider that anything other than a point would have the property of distance associated with it. A building block that has the property of distance would present an irreconcilable problem because distance is a property of spacetime and spacetime has not been created yet. If the building block component has distance, then by what means is the parameter of distance established, measured, and quantified? The component building block used to build spacetime cannot have the property of distance and therefore must exist as a point. But what would distinguish this point from all the other points? The building block point entity is a point that spins.

A universe that has no spinning points is a universe of only points with no way to distinguish one point from another. In this new mathematics, points that cannot be distinguished from each other are considered to be the same point. A spinning point added into a universe of indistinguishable points creates a relative motion of **all** other points in the universe. Since there is no parameter of distance established yet, the new math uses a new parameter called “*length*”. It is important to keep in mind that the new parameter being called *length* only depicts whether a point is “relatively closer” or “relatively farther” from the spinning point and is never to be confused with what we know as distance.

Distance cannot be defined by points because points do not have the property of distance and between any two different points there are an infinite number of points. Depending on your perspective the surrounding points can be considered moving circumferentially or not moving at all. Since the circumferential points cannot be differentiated from the perspective of the spinning point they need to be considered the same point with the same value for their circumferential motion. It is not necessary for us to know a specific quantitative value for this circumferential motion; it just has to be the “same value”.

¹ https://www.academia.edu/31932836/Why_Cant_Physicists_Recognize_Grand_Unification

We can express the “relative” circumferential movement of the surrounding points mathematically using the relative *length* (l) and the “relative” angular velocity (ω). The angular velocity is given in terms of another new parameter associated with “*time*”; but this parameter we are calling “*time*” is not what we currently conceive as our known parameter of time. (Similar to the relationship of *length* compared to distance) This new parameter of “*Time*” is “relative” and is considered to pass “relatively quicker” or “relatively slower” with no quantitative value. The angular velocity (ω) is in terms of $1/\text{“time”}$.

All points surrounding the spinning point have the “same value” for their relative circumferential speed and is expressed as $(\omega \cdot l)$. Since the relative circumferential speed is the same value, the relationship between ω and l is an inverse relationship. So when the length is relatively closer to the spinning point and approaches zero, the value of ω approaches infinite. As length increases to infinite, the value of ω approaches zero. (Remember that infinite length does not mean infinite distance.) In this manner, the spinning point creates an operator field based on ω where the operator’s value ranges from infinite at the spinning point to zero infinitely away. Figure 1.

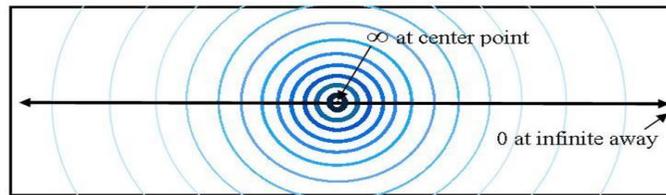


Figure 1. A spinning point entity creates an operator field with the value of infinite at the spinning point and zero at infinite away.

We need not concern ourselves with distance or direction because those parameters have not yet been created. Distance, directions, time, and dimensions are parameters derived by the collective property of a humongous number of these spinning point entities used to build the spacetime medium. Note that the term “entity” is used and not the term “particle” since a particle co-exists “with” the fabric of spacetime, while the building block “entity” exists “as” the fabric of spacetime.

Morning: Deriving of the Parameter of Distance

Consider an infinite linear alignment of spinning point entities at rest and equally “spaced” where their operator fields extend infinitely outwards co-existing on the infinite line. (This alignment is not physically possible but serves as a teaching tool.) Figure 2.

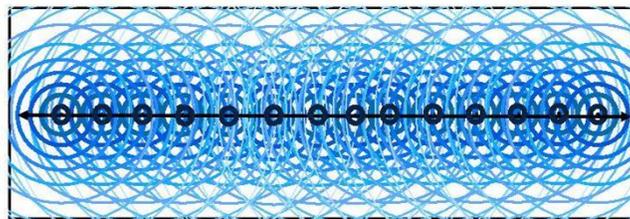


Figure 2. Infinite linear alignment of point entities at rest and equally “spaced” where their operator fields extend infinitely outwards co-existing on the infinite line.

This alignment of point entities leads to a mathematical equivalence in regards to the operator values. Two sets of operator values from infinite to 0 exist on the infinite line extending from both sides of each spinning point entity. However, it can be said that these sets also exist within the space between two adjacent point entities. That is to say that each point entity's total created length values (and *time* values) lies within one "space" along the infinite linear alignment. Figure 3.

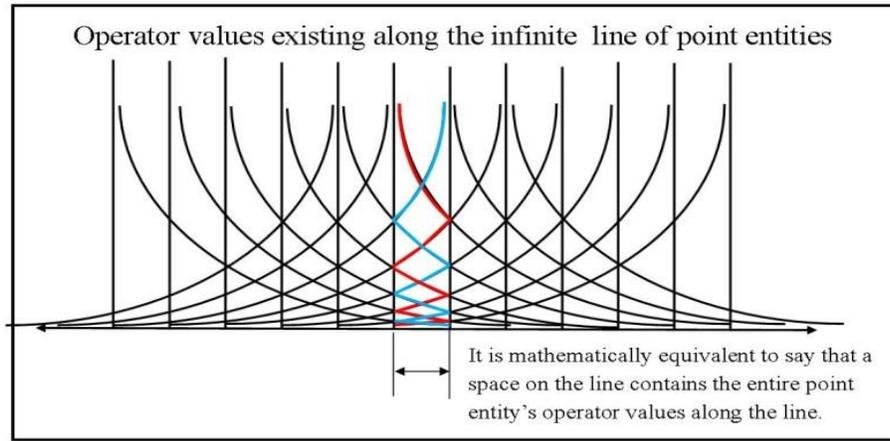


Figure 3: An infinite line of equally spaced point entities shows that each space contains an entire point entity's operator values. Thus each point entity is accountable for a "space" along the infinite line of equally spaced point entities.

This new model defines the "space" between two spinning point entities along an infinite line of point entities as a quantum distance (Qd). Note that any position on the line can be used as a starting position to measure off a quantum distance along each direction on the line. Figure 4.

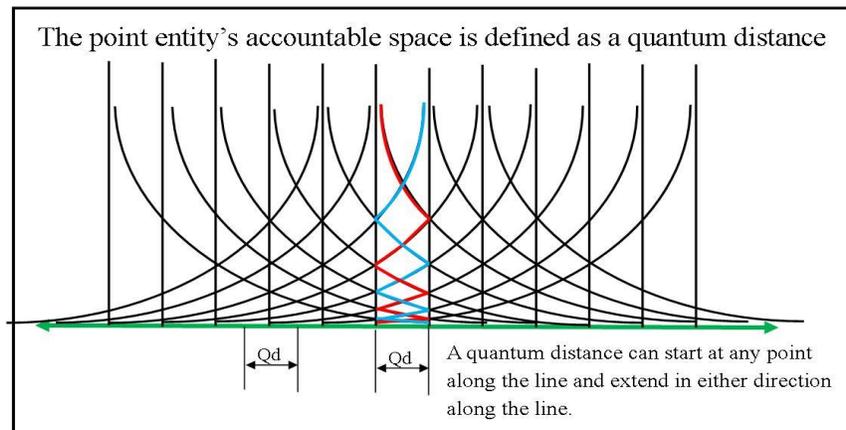
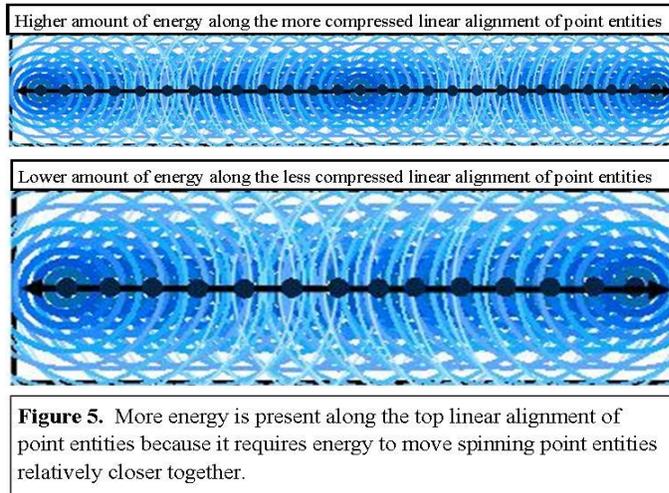


Figure 4: Even though it is mathematically equivalent to say that the space between two point entities is created by one point entity, it must be kept in mind that the quantum distance parameter created along a line is the collective property of all the point entities along the line.

Decreasing the "relative" spacing between the point entities on our original line to 1/2 the original spacing would require energy to bring these entities closer together. Another way to decrease the spacing would be to add a point entity to the middle of every space between adjacent point entities on the original line; that also would require energy. Figure 5.



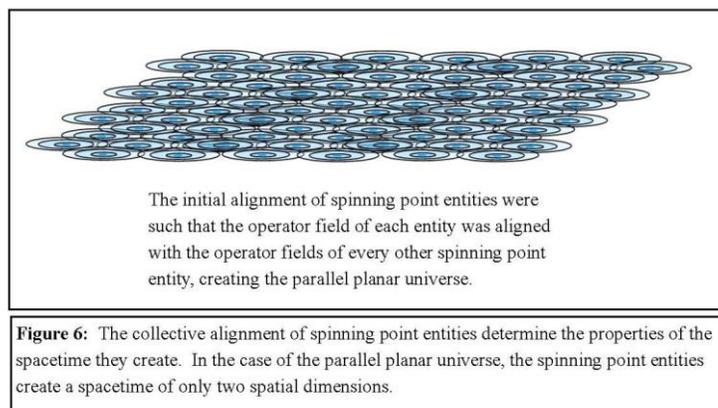
Even though we are considering that adding a spinning point entity represents the addition of a Qd along the line, always keep in mind that the Qd is a parameter based on the collective property of the point entities along the line. When the energy density has doubled along the line, the new Qd is 1/2 the original quantum distance.

The quantum distance is shown to be a relative parameter where the relative quantum distance is based on the amount of relative energy contained in the underlying organization and “spacing” of spinning point entities.

Noon: Speed of Light is a “Relative Constant”

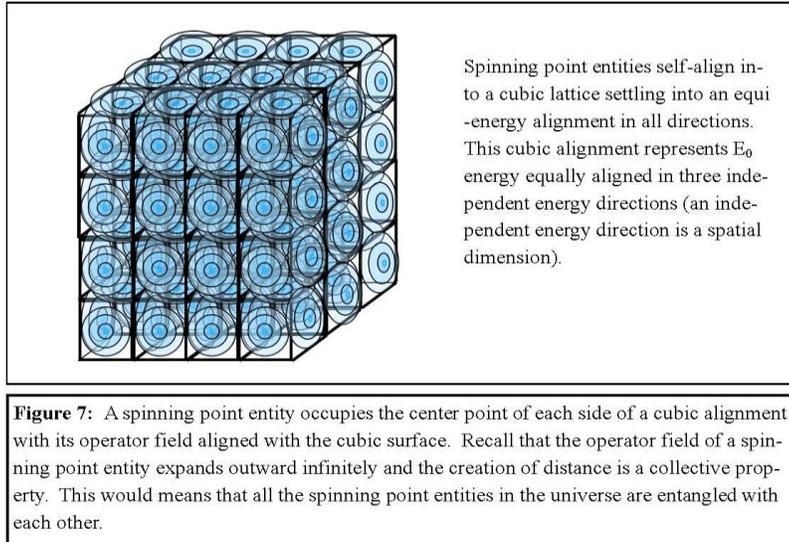
For the purposes of getting to the crux of this essay, it is necessary to quickly skim through the basics of creating an ideal primordial photon.²

Before the big bang, all the spinning point entities had their plane of spin on each other’s plane of spin creating the parallel planar universe. From our current perspective the parallel planar universe would be considered a two spatial dimensional universe. Note that distance does not exist along the direction of the axis of spin of the spinning point entities. Figure 6.



² The GOD Entity: Gordon’s Theory of Everything, Chapter 4 , Pages 89 - 129

The big bang represents the parallel planar universe collapsing as it underwent a vacuum decay phenomenon. The planar alignment of spinning point entities reorganized into a cubic lattice. This lattice is created as the center point of a spinning point entity collectively reorganizes and comes to occupy the center point of a cube's surface. The spinning point's radial energy field is aligned with the surface of the cube. Figure 7.



The realignment of spinning point entities from its original planar alignment to a more stable cubic configuration is the only time in our universe's history where primordial photons were created.

A primordial photon is created when a spinning point entity is accelerated along a direction of its planar spin to reach the velocity of 1 Quantum distance per 1 Quantum time unit. The quantum time unit is the time unit that defines when the velocity of the spinning point entity reaches the speed where it can no longer "fall" back into a position of spacetime's structural lattice transforming it into a primordial photon. This is the speed of light c and it is always $1Qd/1Qt$. Once a spinning point entity reaches c , it is destined to move at c forever as a primordial photon.

To this day no photons along with their associated energy can fall back into the structural lattice of spacetime and after the big bang it is no longer possible for a spinning point entity of spacetime to be accelerated and become a new primordial photon.

Afternoon: Mathematically Expressing the "Relative Energy" Along a Line

Let's imagine that all the spinning point entities along a line of spinning point entities are able to be immobilized except for one point entity which will be allowed to move. (Again this is not possible but only for teaching purposes.) Let's displace the movable point entity by $1/3 Qd$ closer to an adjacent "fixed" point entity. In order to hold that point entity in this displaced position, an additional point entity would have to be added at the $-1/3 Qd$ position. If the movable point entity was moved $1/2 Qd$ towards an adjacent point, it would require the addition of 2 more point entities to hold the movable point entity in that displaced position; one at the original position and the other at the $-1/2 Qd$ position. If the movable point is moved $3/4 Qd$ towards an adjacent point, it would require the addition of 6 more point entities to hold the point entity in that displaced position. Figure 8.

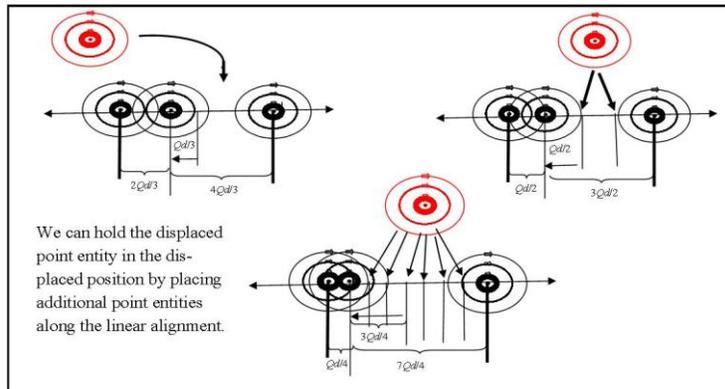


Figure 8: The displacement of a spinning point entity from its equi-energy position along a linear alignment of spinning point entities requires energy. The relationship of the amount of displacement to the amount of energy required is ascertained by determining how many additional point entities are required to keep the displaced point entity displaced.

Note that it requires energy to displace a point entity from its equi-energy position. The above exercise provides the means to derive a relationship between the relative energy (E) required to displace of a point entity from its equi-energy position (x).

$$E = \frac{2|x| Qd}{(1-|x|) Qd}$$

where x is the amount of displacement of an equi-energy point entity in either direction towards the next point entity and must be less than 1 Qd.

Note that the energy represented in this equation is not an absolute value of energy because it is based on the “relative Qd” along the line.

We can substitute $(Qt) c$ for Qd :

$$E = \frac{2|x| (Qt) c}{(1-|x|) (Qt) c}$$

Qt is a constant and cancels out:

$$E = \frac{2|x| c}{(1-|x|) c}$$

Although we can also cancel out c/c , it is still mathematically correct to write this equation using the term c^0 and it serves an important conceptual purpose for us to do so.

$$E = \frac{2|x|}{(1-|x|)} c^0$$

We should also acknowledge that the term $\frac{2|x|}{(1-|x|)}$ represents the “relative energy” required to displace a point entity from its equi-energy position within the underlying spacetime.

Evening: The Hierarchy of Energy

The equation derived above represents the energy associated with spacetime. Note that this energy is proportional to c^0 . This proportionality should not be dismissed just because it is new and unfamiliar. This new representation of the energy associated with the fabric of spacetime is where most of the energy of our universe still resides. This new expression of energy presents a new challenge for physicists where physicists need to incorporate this missing piece of the puzzle into its proper place to complete the model of our universe.

From this base energy state, only some of this energy jumped to higher energy states. A photon's energy is the energy of the next higher energy state and is proportional to c^1 . Particles that contain mass represent energy that jumped from the photon's energy state to the next higher energy state where this energy is proportional to c^2 .

Physicists properly account for the energy of particles "in" spacetime that contain the two higher energy states. However until now, there was no mathematical representation for the base energy state that is associated with spacetime. The expressions for our known energy states are $E = mc^2$ and $E = h\nu$. Einstein derived $E = mc^2$ through special relativity. Einstein and Planck derived $E = h\nu$ which can be rewritten as $E = (h/\text{wavelength}) c^1$. The deeper relationship of these energy equations, along with the equation conveying the energy of spacetime, can finally be recognized and expressed as a three tiered, hierarchy of energy:

$$\mathbf{E}_G = \mathbf{m}_G \mathbf{c}^G \text{®}$$

where G represents the three Gordon Energy States denoted by the values 0, 1, and 2.

The m_G term for all energy states always represents the displacement and/or motion of the underlying spacetime from its equi-energy position³. When $G = 2$, m_2 is mass. When $G = 1$, m_1 is (h/λ) . When $G = 0$, m_0 is

$$\frac{2|x|}{(1-|x|)}$$

The hierarchy of energy also tells us that no matter how much relative E_0 energy is contained in the spacetime we occupy, the amount of relative E_0 energy is always proportional to c^0 . The E_1 energy of light moving through **any** spacetime (associated with any amount of relative E_0 energy content) will always be measured as moving through that region of spacetime at c^1 .

Going back to our line of point entities (Figure 5), if we were to determine the speed of light along the higher energy density line from the perspective of the original lower energy density line, the speed of light on the higher energy density line would be relatively 1/2 the velocity of the lower energy density line. That is because the relative quantum distance of the higher energy line is 1/2 the relative quantum distance of the lower energy line. The speed of light always moves at $1Qd/Qt$.

However when you determine the speed of light while being on any line of point entities, no matter what the E_0 energy density along the line is, you would "see" the photon always moving one quantum distance (Qd)

³ ["Why Can't the LHC Find New Math?"](#)

(within that spacetime) in a quantum time unit (Qt)... or the speed of light. The speed of light is therefore a “relative constant” relative to the relative quantum distance which is relative to the amount of underlying E_0 energy along the path of the photon. In this way we can consider the speed of light as the speed in which energy must move through energy to maintain their independent energy states.

The speed of light always measures $1Qd/Qt$ from within **all** reference frames but is relative when comparing reference frames with differing amounts of E_0 energy. This explains why the Michelson-Morley experiment failed to reveal a change in the medium that light is traveling through.

The equation that represents dark energy is the energy of spacetime.

$$E_0 = m_0 c^0$$

where m_0 is

$$\frac{2|x|}{(1-|x|)}$$

The dark energy of spacetime is the missing piece of the puzzle. Current theories do not address why the speed of light is the same in all reference frames. The Gordon Model shows that the speed of light is the speed in which E_1 energy must travel through E_0 energy (dark energy). The speed of light has a specific quantitative value; however the Gordon model shows how the speed of light is a relative constant. The rest of our physical constants in all reference frames settle on their quantitative values for the same reason.

Evening: A Fundamental Model Provides Fundamental Answers

How do the physical constants settle on a specific quantitative value? Currently physicists have no answer as to why our physical constants have specific quantitative values. If a parameter can have any value from zero to infinite, how can any absolute quantitative value of any parameter ever be established? An absolute value would still have to be relative to some relative quantitative reference value such as the quantum distance. Gordon’s Theory of Everything reveals the mechanism by which the “relative constant” comes to exist. Our physical constants are not possible without the concept of the relative constant to specify a specific value in our reference frames despite the varying E_0 energy levels of spacetime.

When a reference frame is relatively accelerated compared to a stationary reference frame, there is a relative motion of spacetime with respect to the moving reference frame. This means there is a relative motion of its underlying spacetime compared to the “non-moving” spacetime of the stationary reference frame. The relative motion of spacetime with respect to the moving reference frame corresponds to an increase in the relative E_0 energy in the accelerated reference frame. But the speed of light measures the same in both reference frames no matter what the underlying E_0 energy is in the underlying spacetime; the speed of light will still be measured as c^1 .

This is the postulate on which Einstein’s theory of relativity is founded. The Gordon Model’s concept of the “relative constant” tells how this postulate comes to exist along with how our physical constants come to have their specific quantitative values.

Why can't the LHC find new math? The E_0 energy and the hierarchy of energy are fundamental components which are missing from our current theory. The reason why it has remained hidden for so long is because there is no direct way to experimentally reveal it and no way for us to mathematically derive it.

Recall that only during the big bang was E_0 energy able to jump up to E_1 energy; and after the big bang E_1 energy could not return to E_0 energy. The block in energy transition between the G_0 and G_1 Gordon Energy States is the reason why the laws of conservation of energy and momentum exist. If the law of conservation of energy did not exist, there would eventually be no particles in the universe, only spacetime, as all the energy of particles fall back into the G_0 base energy state. The reason why dark energy could never be directly found now becomes apparent; it is because of the transitional block between the G_0 and G_1 Gordon energy states means the E_0 energy can never be experimentally revealed no matter how hard you smash particles together. This is why the LHC will never reveal new math.⁴

There is no way to derive dark energy from our current theories, mathematics, or models. And therefore in addition, there is no way to find the hierarchy of energy, or the concept of the "relative constant".

Dark energy plays a major role If we accept that spacetime contains E_0 energy, then spacetime can (and does) have varying E_0 energy levels. This would mean that spacetime is not the same everywhere. But from within our perspective in spacetime, we could never realize this experimentally or derive it from our current math.

What we are calling dark energy (the energy responsible for accelerating particles "in" spacetime) is an energy gradient within the E_0 energy of spacetime. Right after the big bang, there was a humongous E_0 energy gradient. This energy gradient easily overcame the puny force of gravity⁵ between the newly created particles containing mass. As the universe aged, the E_0 energy gradient gradually decreased (as the spinning point entities of spacetime forever repel from each other). As the mass containing particles were accelerated outwards away from each other, they acquired potential energy relative to each other by locking this potential energy into their gravitational fields.

This model does not change our current math. It supports our math by deriving how all our parameters come to exist in the first place. It also derives from a single complete, coherent, consistent theory how the postulates used to derive general relativity and quantum theory comes into existence, thus uniting them under one model. It shows how particles create their energy fields as the interaction between their E_1 and E_2 energy with the underlying E_0 energy of spacetime.

I respectfully present this new conceptual foundation as the dawning of a new day the field of physics. I hope that this model will be advanced, and in doing so, shed some light on the complex problems now being faces in physics, cosmology, and astronomy.

⁴ ["Why Can't the LHC Find New Math?"](#)

⁵ ["Dark Energy's Role in Gravity"](#)