There can be no span of time without a span of time that preceded it.

No span of time can be considered the first span of time.

There can be no first second nor last second of time.

There is no largest measurement of time. There is no smallest measurement of time.

All we can hope to ever measure as it relates to time are those measurements relative to the degree of scientific precision at the scale factor of the instruments being used to record the measurements.

Time is infinitely long and infinitely divisible.

Every object traverses its own unique line of time and has its own unique perception of the passage of time from inception until oblivion.

Nothing can be said to exist outside the line of time for even a one-dimensional line and a zero-dimensional point can only be said to exist if they traverse their own line of time.

An infinite span of time preceded the moment when the direct chain of cosmic events that created our visible universe began to occur.

An infinite span of time shall pass long after the last footprints we ever existed have faded away.

Time is the first dimension.

Time and space are interwoven and inextricably intertwined thus infinite time begets infinite space.

There can be no first meter or first mile or first inch nor can there be a last parsec or last light year.

There is no largest measurement of space or distance. There is no smallest measurement of space or distance.

All we can hope to ever measure as it relates to space or distance are those measurements relative to the degree of scientific precision at the scale factor of the instruments being used to record the measurements.

Space is infinitely wide and infinitely divisible.

In any direction you can travel in straight parallel lines and never hit the first mile or first meter.

There is no end in any direction you travel whether you choose to go outwards into the vast cosmos or magnify inwards inside the smallest neutrinos.

Even if we found curvature to our localized area of space time and determined our known universe was not a flat universe it would still have to exist inside of a larger Euclidean space.

It is only possible for a non-Euclidean pocket of spacetime to exist when It is contained inside a larger Euclidean Minkowski spacetime.

SpaceTime is infinitely wide and infinitely divisible.

Infinite spacetime begets infinite energy.

We find it hard to conceive of our single planet being the only one with sentient life out of hundreds of trillions of planets so it must be even more inconceivable to imagine an infinite vast spacetime with just our little portion of it being occupied by matter and energy.

There is no reason to assume our entire Universe is not homogeneous with matter and energy existing for as far as one wished to travel in any direction.

There is no largest measurement of energy. There is no smallest measurement of energy.

All we can hope to ever measure as it relates to energy are those measurements relative to the degree of scientific precision at the scale factor of the instruments being used to record the measurements.

> **Energy is infinitely large** and infinitely divisible.

Infinite energy begets infinite mass. Mass and Energy are intertwined. Where one goes the other follows.

Energy can manifest from fast-moving mass just as mass can manifest from slow-moving energy.

There is no largest measurement of mass. There is no smallest measurement of mass.

All we can hope to ever measure as it relates to mass are those measurements relative to the degree of scientific precision at the scale factor of the instruments being used to record the measurements.

Mass is infinitely large and infinitely divisible.

SpaceTime MassEnergy is infinite.

What we call the infinite Universe is an eternal amount of space and time and mass and energy that has always existed and has no beginning in any dimension at any scale factor.

There are an infinite set of points in space and time each with measurable dimensions that have meaning or value to some finite number of other vantage points.

Mass and Energy can bind to space time and can be seen influencing both space and time.

The Universe contains pockets of spacetime massenergy each carving out a slice of existence for its transient journey hurling through the cosmos.

An infinite number of pockets of spacetime massenergy have existed, exist now, and will always exist.

Fact: The faster you move through space the slower you move through time. Objects sharing the same relative trajectory and relative velocity create a frame of reference. All objects sharing that same cohesive frame of reference perceive the passage of time at the same base rate.

Our planet is a frame of reference but so is our solar system, our galaxy, our supercluster, our universe, every vehicle, each of us, and every subatomic particle.

A cohesive frame of reference sharing the same trajectory and velocity can be considered a pocket of relative spacetime massenergy.

The effects of gravity on spacetime can cause time dilation no different than speed related time dilation. Time dilation caused by speed and time dilation caused by gravity are both proven and are not in the realms of science fiction.

The individual motions of bodies or collection of bodies moving as one inside that parent frame of reference further define each object's unique perception as to the passage of time and space that they pass onto their children. Inside any pocket of spacetime each child pocket's perception as to the passage of time is relative to the parent frame but then further dependent on the individual motion of each body and the gravitational fields acting upon it as it moves through spacetime inside its parent frame.

Every frame of reference requires a parent frame of reference to exist inside of.

Objects in nature always have a current frame of reference and that frame of reference always has a parent frame of reference and that parent frame of reference itself has its own parent frame of reference.

Every pocket of spacetime massenergy is in motion either directly or indirectly and hurling through the cosmos. Other nearby pockets of relative spacetime massenergy at that scale factor attract to each other and over time will share the approximate trajectory and velocity of the most massive object.

Gravitational attraction is what holds pockets of relative spacetime massenergy together.

The same way ten thousand flashlights will look brighter when close together so will the gravitational attraction of pockets of spacetime massenergy take on the aggregate gravitational attraction of its constituents and act as one.

Infinite spacetime massenergy begets an infinite succession of nested pockets of relative spacetime massenergy.

Every pocket of spacetime acquires both its relative time and relative space based on the perception of space and time of its parent frame of reference. Every pocket of spacetime passes on its perception of time and space to all children bodies sharing the same relative trajectory and relative velocity.

There is no largest pocket of relative spacetime massenergy. There is no smallest pocket of relative spacetime massenergy.

You can go in any direction outwards into space or inwards into any atom and continue forever in a straight line and never hit the last nested frame of reference.

If something caused the Milky Way galaxy to move through spacetime three hundred times faster, our perception of time relative to vantage points outside our galaxy would change.

If the Virgo Supercluster were to slow down to half its speed, again our perception of time would change, albeit marginally.

All the planetary systems inside our galaxy would not necessarily see any differences unless peering outwards beyond the frame of reference whose speed had changed.

Our visible universe was born into a larger frame of reference. Our visible universe obtains its perception of space and time from that parent pocket of spacetime massenergy.

Sitting here at my desk I feel stationary although there is no paper around. I do not feel the approximate 1/2 km/s I am travelling through spacetime thanks to Earth's rotation. I do not feel the approximate 30 km/s I am travelling through spacetime thanks to Earth's revolution around our sun. I do not feel the approximate 200 km/s I am travelling through spacetime thanks to the Sun's orbit around the Milky Way. I do not feel the approximate 500+ km/s I am travelling through spacetime thanks to the Milky Way's journey.

I do not feel the approximate 1000+? Km/s I am travelling through spacetime thanks to our known universe's revolution and rotation.

Each successive parent frame of reference can cause an increase in the relative velocity of our galaxy, our sun, our planet, and each of us.

All pockets of spacetime massenergy are in motion. No frame can be considered at rest.

Pockets of spacetime massenergy collide at all different scale factors. The further removed from the scale of our visible universe the pockets are that collide, the greater the relative kinetic energy released during each collision of those bodies that actually collide when the paths of two pockets intersect.

The density of each pocket determines how many objects collide and how many objects miss each other. The relative velocity of the pockets determines of those objects that miss whether a majority will form new orbits or will pass by each other.

The relative velocity of the pockets determines of those objects that collide the amount of kinetic energy turned into heat, into energy, and into matter.

There are times where collisions can occur between two pockets that are tens of thousands or hundreds of thousands of nested pockets deep! The relative speeds of impact of two successively disparate parent frames of reference can increase to approach twice the speed of light.

The speed of light is constant and unable to aggregate to be faster than itself. The limit as to how fast light can travel brought us relativity and thus pockets of relative spacetime massenergy. That does not negate the ability within our nested pockets of spacetime for our relative speed compared to some great great grandparent far far removed from us to see us slowly begin to approach the speed of light. If we accept the likelihood of an infinite sequence of nested pockets of spacetime then we must also accept that relative to some much larger frame of reference our entire solar system would appear to be moving at the speed of light. There are times when pockets at or near this level of nested frames deep collide and when that happens, we can have collisions taking place with the relative kinetic energy equal to 1.8C, 1.9C or higher. An infinite number of collisions between pockets of different scales has occurred.

Collisions occur at all different relative velocities and the kinetic energy involved in collisions that approach 2C have an ability to create more mass out of the energy expelled during the collision than the mass of the originating masses that collide. We can see this same thing in a way when watching how the collisions of quarks to create protons and neutrons produce more resultant mass than the originating source particles started with.

> There was no first collision nor will there be a last collision.



I propose that Successive Collision Theory offers more observational evidence to explain the cosmic event we call our big bang than if all the source matter and energy of our big bang originated from a singularity.

I intend to show that far too many observations we have made about our universe point to successive collisions at high speed as opposed to all the matter that makes up all we can see originating from inside a small condensed area.

The evidence supporting Successive Collision Theory includes :

Harmonic Galactic Inclinations and Axes of Rotations Harmonic Axes of Rotations of Quasars 50/50 Split Between Clockwise and Counterclockwise Rotations SuperVoids and SuperClusters Missing Black Holes, Missing Stars, and Red Transients Lower Starting Temperature and Larger Starting Area Galactic Diversity and "Faster Than Light" Inflation

Our visible universe formed when two immense pockets passed through each other at unimaginably high relative speed.

If there was a fast expansion outwards from a point where all the matter in the universe was contained in a tiny condensed space we would either expect all galaxies to have random relative inclinations of their galactic planes or possibly those galactic planes would follow more of a pizza pie type orientation as they thrust outwards from a center.

It appears an odd mystery why so many galaxies from all different parts of the universe could share the same approximate relative axis of rotation and relative inclination.

If however there were two universes that collided there would be an approximate degree of impact and trajectory of impact for many of the objects that were obliterated. Some of that leftover momentum of impact is seen in the resulting rotation of galaxies.

The overwhelming number of collisions taking place at the same approximate trajectories and angles of impact is why we will continue to find more and more galaxies that share the same leftover angular momentum.

There could have been tens of thousands, hundreds of thousands, or possibly millions of separate collisions involved in what ended up evolving into our visible universe.

If there was an explosion outwards from a point where all the matter in the universe was contained in a condensed space we would either expect all large black holes and quasars to have random axes of rotations or the axes of rotations would align more perpendicularly to spokes on a wheel.

We are finding many quasars from diverse areas of the visible universe share the same axes of rotation. This would be predicted when two universes collide. They also share the same relative inclination of their host structure indicating a single eddy of hot baryon photon electron plasma likely created each structure.

As time goes on we will continue to find more and more quasars, black holes, and galaxies that share this same relative harmonic inclination of their axes

The next prediction of successive collision theory requires that I borrow your imagination for a moment.

Imagine two massive pockets colliding at relative speeds exceeding 1.8 times the speed of light. I'll pick 2 random names and so let's call them Shakti and Shiva.

Their child objects that in turn collide could have three potential impact zones. Some percentage of objects will collide nearly head on. Some percentage of objects from Shakti will hit the right side of the object from Shiva. Some percentage of objects from Shakti will hit the left side of the object from Shiva. The random nature of two colliding pockets would predict a roughly equal distribution of left-side and right-side impacts.

We observe in our visible universe a roughly 50/50 split in rotational direction between clockwise and counterclockwise spiral galaxies.

Inside "Shakti" and "Shiva" objects would have had their own trajectories and orbits. Some collisions would occur head on in the same direction of the angles of impact. Those collisions would have the greatest release of kinetic energy as there would be much more heat and much more energy released than would be conserved in the resulting angular momentum of the hot spinning eddies of plasma energy that form from each collision.

Potentially more matter could in theory be created as the energy cools than the original amount of matter involved in the collision as the speed approaches twice the speed of light. SCT would predict vast superstructures of the cosmos with lower rotational spin and vast empty voids with little to no galactic activity.

We observe in our visible universe Superclusters Supervoids, and Massive Filaments, Further predictions of Successive Collision Theory.

The currently accepted paradigm states that we had 10 to the power of 80 particles stored in a tiny constricted space swirling around as it inflated. At that density one might only expect 2 possible outcomes as it expanded. The much more likely of the two would lean towards extreme similarities in cosmic structures like galaxies in their axes of rotation and speed of rotation and density. The other second likely option would be complete randomness in cosmic structures. But neither is the case. We do not find complete randomness and we do not find complete similarity. Not at a degree that one would expect from a such a dense and uniform source.

> Another mystery that is hard to explain with the current paradigm is the similarity in speed of rotation across galaxies of all different sizes.

If SCT is true not only would we expect to see similar axes of rotations but we would expect to see a similar speed of rotation. The relative velocity of the two colliding universes would be expected to produce similar relative resulting speeds of rotation of the plasma clouds generated by those bodies that did not hit head on thus retaining more angular momentum.

Observations indicate spiral galaxies of all different sizes rotate approximately once per billion years.

If we find all galaxies per cluster share the same directional spin of rotation then collisions created clusters also, not just galaxies.

 $\sum_{i=1}^{n}$

Our current paradigm can not explain how the central black hole of a galaxy could go missing yet we have evidence this has occurred. Any sort of collision of an object from inside our universe would not have sufficient energy to decimate a black hole but would instead be gobbled up and merged.

We have unexplained evidence of stars that have mysteriously disappeared as well.

If SCT is accurate then we might expect rogue visitors from outside our pocket of spacetime to pass through at speeds greater than the speed of light.

Faster than light collisions occurring inside our universe would explain the missing objects.

As time goes on we may eventually track or capture a foreign faster than light object interacting in some way with our visible universe. (Hopefully far from anywhere near us!)

Passing through a nebula could ignite hundreds of pockets of gas that burn out a short time later. These "red transients" are also an observed unexplainable event tracked by the Vasco project.

In an infinite Universe, we can have objects moving faster than the speed of light because they originate from a completely different nested ancestral frame of reference.

Our current paradigm offers up a best guess as to the predicted nature of the big bang. Our best guess includes a starting temperature around 10^32 Kelvin.

That means taking the hottest quasar and multiplying its temperature by a billion squared.

Yet it offers no explanation for any type of event that could elicit such a temperature.

It also claims that all the matter in the visible universe was contained inside an unimaginably constricted space. It also claims there was a brief period of time as this expanded that it was able to violate the speed of light during a period of rapid inflation where literally every watt of energy in the universe that by law cannot break a speed limit was magically given a microsecond free pass to break the laws of nature.

Remove the singularity from the equation and the starting size of our initial universe instead of being incomprehensibly small could be much closer to the approximate size of the initial CMB and would not have needed as long to cool.

Instead of 380,000 years of cooling maybe there was 380,000 weeks or even days of cooling to get down to the 3000 Kelvin recorded when our CMB formed during recombination.



As we branch out into the cosmos mark my words this day that we will eventually find objects 20 billion and 30+ billion years old.

Not everything from the original two pockets that collided would have been completely decimated into pure plasma.

We will find remnants in (or as) asteroids or moons or maybe even planets someday that are far older than 14 billion years and that would be the final proof in my eyes that SCT was in fact the reason for our big bang and that we do in fact live inside an infinite universe.

It need not have been part of the original collision however. A rogue wanderer from either of the initial pockets or even a third pocket may have entered our pocket after our visible universe began to take shape.

We can have a single pocket of spacetime massenergy where all we know is in fact all there is or was. Or we can have an infinite number of other pockets. But we can't have a number in between! A single object found older than 20 billion years is clear proof we exist inside an infinite and eternal Universe.

Our current paradigm can not adequately explain the wide range of diversity we see around our visible universe. The sizes and shapes of galaxies, the orientations and relative inclinations, gigantic superclusters and filaments and massive supervoids. Some very diverse and different in density and speed yet at the same time so many that share a precisely similar resulting angular momentum.

If the entire pocket of relative spacetime massenergy was spinning fast when it exploded that might retain a large percentage of angular momentum in the resulting axes of rotations of galaxies and large quasars but then with 10^80 particles stuck inside a tiny space at the start we can not explain the nature of certain superstructures or supervoids that we see across our visible universe. Fast spinning dense expansion would be much more uniform than what we have recently begun to learn about the true nature of the cosmos.

Successive Collision Theory can explain so many more nuances that abound than a singularity can without having to propose unexplainable temperatures or densities or speeds.

I propose that over time we will be able to build a set of mathematical formulas to describe the cosmic events that formed our visible universe. Not only the pockets themselves will be named but each pair of objects that collided will be given names.

They will be assigned relative trajectories and relative velocities and angles of impact and degrees of impact. They will be assigned an object classification roughly related to its approximate density and size and there will be formulas for the amount of original mass, kinetic energy released, heat released, and angular momentum retained by the resulting spinning clouds of super hot quark gluon plasma energy.

I propose a new branch of superluminal physics will evolve.

I might even be so bold as to predict that over time we may try to piecemeal together the timeline of events and possibly see where a latecomer to the party may have cleared away a section of a galaxy that might have otherwise been populated.

Our known universe probably did not originate from a singularity but instead there may have been hundreds or thousands of singularities involved. However, if there was in fact a single one, it was a faster than light collision with an object from a foreign pocket of spacetime that caused it to turn into a hot spinning cloud of plasma!

Our visible universe has an invisible part but I am not talking about dark matter and not directly referring to dark energy.

The invisible part is the area within our largest measurable pocket of relative spacetime massenergy that is so distant from us that the light can never reach us thus we can never see it from our current vantage point.

The portion of our universe outside our visible light sphere grows at the same time the portion of the Universe inside our visible light sphere shrinks. But outside that which we can see there is an approximate boundary between the cohesive frame of reference of our entire pocket of relative spacetime massenergy created during the cosmic events we labeled the big bang and the expansive void between our pocket and our nearest neighbors.

There were most certainly many other pockets just like ours created during the same collisions of the two prior pockets of spacetime massenergy.

We may have been part of a dense galactic center filled with stars and black holes but there would be many other pockets of all different sizes and densities all created during the same cosmic collision that took place between two prior "universes" almost 14 billion years ago.

Some number of those other pockets are likely close enough to ours for the gravitational attraction between them to bind them to the most massive pockets.

Our pocket may have satellite pockets or we may be in orbit or we may be on a collision course.

Our known universe likely has an axis of rotation, a speed of rotation, an approximate center of mass, an approximate center of gravity, an average density, an average temperature, an average luminosity, and a parent frame of reference.

Our known universe almost certainly has siblings.

I suggest we should separate what we call the Universe with a capital U from our universe with a lowercase u. Our universe was created during a discreet sequence of events that took place during a specific span of time over some specific span of space.

Our universe is but a cosmic speck of dust floating along in an infinite sea of cosmic dust.

The Universe is that infinite sea of cosmic dust.

An eternal and infinite amount of time and space and matter and energy that extends infinitely outwards and infinitely inwards has always existed, was never created, and in turn contains an infinite number of pockets of relative space time at an infinite number of different scale factors.

So to make things less repetitive moving forward I have coined the term "post" to be short for pocket of space time.

It really means a pocket of relative spacetime massenergy but "porstme" just does not quite have the same ring to it. Every pocket of space time is a "post" and our "Post" with a capital P is the same as our universe with a lowercase u. The Universe with a capital U is the MultiVerse.

The direct siblings of our Post sharing the same relative trajectory and relative velocity develop over time as they begin to share the movement through spacetime of the most massive objects.

Together they create our Post's parent frame of reference. Gravity binds them together no different then planetary systems or galaxies. Our Post's parent pocket of relative spacetime massenergy that carries our known universe and all its siblings hurling through space and time likely also has siblings. There could be millions of collisions at all different distances and points in time and space when two universes collide.

Most the objects would miss each other but dense galactic centers colliding could be just the type of scenario that creates a Post like ours.

The same cosmic event that created our largest measurable cohesive frame of reference likely created tens or possibly hundreds of siblings to our known universe and likely thousands of first and second cousins, hundreds of "aunts" and/or "uncles", and potentially some grandparents and great grandparents?

Each frame of reference obtaining its perception of space and time from a parent and passing that perception of space and time on to all its decedents. Every post is born in a parent frame but often that is not the same parent they are in now. Each current parent evolves over time as children begin to play follow the leader(s).

Every frame of reference allows for the aggregation of the emanating waves that all its constituent bodies give off.

Bodies can give off one or more waves of light or heat or gamma rays or x-rays or gravitational waves or electric fields or magnetic fields, even if it is only reflecting or deflecting off the true source of the radiation.

Bodies emanate these waves in all directions and because the bodies in a frame of reference share the same trajectory and velocity their waves are able to easily aggregate in phase. This increases the amplitude of the aggregate waves making them stronger that the sum of its constituents because as amplitude increases the energy carried increases exponentially.

The aggregations of their light will allow them to appear brighter from further away. The aggregations of their temperature will allow them to appear warmer further away. The aggregations of their electric or magnetic fields will allow their attractive or repulsive forces to act at a further distance.

But most importantly the aggregation of the collective gravitational attractions (carried by waves) being in phase will allow them to work stronger at distances we otherwise would have expected them to have tapered off.

Our moon is slowly moving away from our planet. Planets are slowly moving away from our sun. Galaxies can see planetary systems slowly increasing the diameters of their orbits over billions and trillions of years.

All orbits decay. Some inwards first but eventually over time they all decay outwards. An infinite amount of energy would be needed to retain an orbit indefinitely and it is not possible to place an infinite amount of relative energy or infinite amount of relative mass or infinite amount of relative space or infinite amount of relative time into a bounded area.

It is the nature of spacetime massenergy to dissipate as nature desires a return to equilibrium. All facets of nature seek out equilibrium and even gravity itself could be thought to be nature's ways at tugging back at the areas where mass causes space and time to warp. The desire of nature to flatten back out could be the pull of gravity that objects feel. That could be a way to visualize the equivalence principle?

Every orbit shares a single truth. Every orbit fights a loosing battle. There is an infinite amount of massenergy outside that orbit and a finite amount of relative massenergy contained within that orbit.

Our planet will end before our solar system does as our sun's natural life cycle removes all habitable environments from all the inner planets. We may establish temporary homes on the moons of the outer planets and maybe even in the Kuiper belt.

We may establish fusion reactors and oxygen generators and water converters but for our species to survive we will need to establish a presence in as many different planetary systems as we can reach. We can choose to try to survive for another thousand years or another million years or another trillion years but our Post will continue to expand.

The expansion of spacetime itself that we see around us as dark energy causes the spacetime between massenergy to spread out and expand. But as objects loose mass over time and orbits decay over time we will find that what once held galaxies together will eventually also succumb to the natural expansion of spacetime.

As the galaxies we can see today someday leave our visible light sphere they will continue along until they collide with another post. Some objects may find new homes and once again see the light of a star and others may decimate violently and the cycle of life begins anew. I do not see what expands outwards now ever being able to be pulled back to a center again.

The cyclic nature of how a pocket of spacetime massenergy like our visible universe forms is not based on recycling the same matter and same energy but the constant flux of all energy and all matter always colliding at all different scale factors.

The end of our Post will start with a Big Freeze and end with the Big Rip.

If someday we could ever reach the boundary of our Post and peer out into the vast expanse we might then see other pockets and if our Post has enough visible siblings then using parallax we could gauge the approximate rate of rotation for our universe to complete one rotation on its axis and possibly even its relative velocity. This type of feat is something we will likely never be able to confirm for only a very small portion of sentient species could ever travel to multiple points along the boundaries of their pocket and then collect that information together for analysis.

But there are some pockets of relative spacetime massenergy where that does happen! There are also an even smaller subset of advanced civilizations able to measure the orbital period of their Post.

We have a choice to strive to be one of those types of species or we can allow greed, ignorance, and intolerance to jeopardize the long-term survival of our species.

Evolution has the potential to be an infinite process as long as a habitable environment can be sustained with adequate nutritional support. Now is the time to take a stand for our only home. We must work together to end the raping and pillaging of its resources and destruction of ecosystems and entire species because population growth is not slowing down. We cannot support the number of people that we will grow to become if we don't all begin to work together for the benefit of every living creature and their lines of succession. Nobody but us can save us or end us.

The past is the collection of choices made. The future is a collection of choices not yet made!