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The following is all the next I could find about his theory from Gen. William
Taggart's Facebook page "Time Density & Mass"
https://www.facebook.com/TimeDensityMass use it to document why his theory is
nothing like mine:
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Time Density and mass (TDM) conjecture What exactly is the Time Density & Mass (TDM) conjecture? Well to explain it simply it is a fully functional metric for the scale space-time as predicted by Albert Einstein's General Relativity. So why exactly did Einstein not produce this metric for himself? It really comes down to the restrictions that existing physics placed upon what he had to work with. As the Result of Lorenz Invariance, the physics in every single frame of reference must be the same. Thus the issue that when you try to isolate a frame of reference within the finite (to use as a unit in a scale metric) that very action of isolation results in the laws of physics within that frame of reference being altered from that of other frames of reference. This meant that within General Relativity Einstein was sitting with one of the most revolutionary concepts that represented a paradigm shift in the understanding of physics, yet he could not use it. Thus, he had to resort to extending the 'through the eyes of the observers' of the earlier Special Relativity to that of General Relativity. Literally hiding scaled space-time from mathematics of the model. How does TDM get around this Lorentz Invariance issue? Well you can't really describe a box if you exist within it, so I had to come up with a way to use everything within the box, without being contained in that box. Thus TDM takes a frame of reference and expands it to encompass the finite universe (The largest thing the finite physics can directly describe) then uses that sum of the finite universe as the base unit in it scale metric for the very fabric of space-time (scaled space-time). As this is the sum of the finite universe then as far as Lorentz Invariance is concerned you have exceeded its relative remit. Some present that is just a play on words and that physics does not work that way. So Let's for the moment ignore the laws of physics and say that Lorentz Invariance does apply to the creation of these new scale frames of reference. Well this is where another aspect of Scaled space-time comes into play, that of scale related Direct Interaction, what this means is that if this isolation caused the laws of physics to be altered in this scale frame of reference, those very changes would propagate instantaneously to the infinite plus/minus scale frames of reference, instantaneously cancelling out the violation of Lorentz Invariance. So no it's not just a play on words, it's very structure leads confirmation of Lorentz Invariance to that of infinity. The phenomenon of quantum tunneling indeed challenges our classical intuitions and plays a crucial role in various physical processes. Let's explore the concepts and the intriguing implications: Quantum Tunneling: Quantum tunneling occurs when a particle (such as an electron) passes through a potential energy barrier that classical mechanics would deem impassable due to insufficient energy. Imagine a particle encountering a seemingly impenetrable wall. Instead of bouncing back like a classical ball, the particle occasionally "hops" through the barrier. This behavior defies our everyday intuition but is a fundamental aspect of quantum physics. Faster-Than-Light Travel?: Thomas Hartman's work in 1962 revealed something astonishing: When a particle tunnels, the trip takes less time than if the barrier weren't there. Even more surprising, thickening the barrier

hardly increases the tunneling time. In theory, particles could hop from one side to the other faster than light traveling the same distance through empty space. TDM and Predictions: The Time Density & Mass (TDM) conjecture, proposed by William Taggart, offers an alternative view. TDM posits that direct interaction between differing scale frames of reference defines the outcomes. While quantum mechanics suggests randomness, TDM posits a linear relationship for tunneling experiments. Prof. Gunter Nimtz's Experiment: Prof. Nimtz's successful transmission of Mozart's music using tunneling highlights the practical implications. TDM's prediction aligns with the linear outcome observed in this experiment, challenging quantum mechanics' probabilistic view. Whilst some may question the validity of Time Density and Mass (TDM) let's consider that General relativity, a cornerstone of modern physics, revolutionised our understanding of gravity as a geometric property of space and time. This theory, developed by Albert Einstein, describes gravity not as a force, but because of the curvature of spacetime caused by mass and energy. The concept of scaled spacetime is an extension of this idea, suggesting that the structure of spacetime itself might change with scale. This is explored in theories like Laurent Nottale's scale relativity, which seeks to unify quantum mechanics and general relativity by considering spacetime to be fractal and non-differentiable at small scales. While not widely accepted, these ideas push the boundaries of our understanding and continue the quest for a grand unified theory. The Large Scale Structure of Space–Time, co-authored by Stephen Hawking and George Ellis, is another significant work that delves into the implications of general relativity for the structure of the universe. These concepts underscore the ongoing efforts to comprehend the fabric of our universe, from the smallest scales to the vast cosmic distances. Where TDM differentiates from these notable publications, is that it is not just the exploration of a concept, it is a fully functional metric for scaled space-time as predicted by General Relativity. A metric that presents us with Direct Interaction, a detailed classical explanation of Instantaneous action/Interaction over any perceived distance. Or to put it in the current terms, a non probability based description of Entanglement/Tunnelling. (Which is supposed to be an impossible task to complete). Time Density & Mass (TDM) Conjecture Overview The Time Density & Mass conjecture offers a framework for understanding the interactions between objects of similar scale within the fabric of space-time, proposing that these direct interactions can explain action and interaction at any perceived distance. This conjecture suggests that a focus on these interactions within the expanded frame of the finite universe provides a comprehensive explanation for phenomena typically described by quantum mechanics, potentially rendering many aspects of quantum theory superfluous. 1. Time Density Concept: Definition: Time density is a measure of the interactions between objects of similar scale within space-time. These interactions affect the local perception and progression of time and are influenced by the totality of the finite universe. Direct Interactions: The conjecture emphasises direct interactions between objects, explaining how these interactions occur at any perceived distance without the need for quantum mechanical descriptions. 2. Expanded Frame of Reference: Finite Universe: The conjecture expands the frame of reference to encompass the entire finite universe, using this comprehensive view to define a scale-related unit of measurement for the fabric of space-time. Functional Metric: A functional metric is introduced to quantify the effects of local interactions on space-time curvature and time density, taking into account the influence of the entire finite universe. 3. Direct Interactions and Distance: Action at a Distance: The conjecture posits that direct interactions between objects of similar scale can

occur at any perceived distance. These interactions are mediated through the fabric of space-time, eliminating the need for quantum mechanical explanations of action at a distance. Perceived Distance: By focusing on the interactions within the expanded frame of the finite universe, the conjecture provides a classical explanation for phenomena that appear to occur instantaneously over vast distances. 4. Implications for Quantum Mechanics: Superfluous Quantum Descriptions: The conjecture suggests that many aspects of quantum mechanics may be unnecessary if direct interactions within the finite universe's space-time fabric can fully explain observed phenomena. Classical Framework: This approach returns to a classical framework, where interactions are understood through the curvature of space-time and the density of local interactions rather than quantum probabilities and wave functions. 5. Mathematical Formulation: Functional Metric: The conjecture introduces a functional metric that modifies the standard metric tensor used in general relativity. This metric includes terms that account for the density of interactions and their effects on space-time, explaining action at a distance through classical means. Field Equations: Einstein's field equations are extended to include the functional metric, providing a detailed description of how mass density and local interactions influence time density and space-time curvature on a universal scale. 6. Cosmological Implications: Structure Formation: The functional metric can explain variations in the formation and evolution of cosmic structures, showing how regions with different interaction densities evolve differently within the finite universe. Universe Expansion: Understanding how local interactions and time density variations within the finite universe affect large-scale structures can offer new insights into the expansion and behaviour of the universe over time. 7. Experimental Evidence: Astronomical Observations: Observing relativistic effects in regions with different interaction densities (e.g., near black holes, in galaxy clusters) can provide evidence for the functional metric. Laboratory Experiments: Precision measurements using atomic clocks in varying gravitational environments can test the effects of local mass interactions on time density. Differences in clock rates at different altitudes or gravitational fields can provide measurable evidence. Key Points: Direct Interactions: The conjecture emphasises that direct interactions between objects of similar scale can occur at any perceived distance, mediated through the fabric of space-time. Functional Metric: A functional metric is introduced to quantify the effects of these interactions on space-time curvature and time density, using the finite universe as a reference. Classical Explanation: By explaining action at a distance through classical interactions within space-time, the conjecture suggests that many aspects of quantum mechanics may be superfluous. General Relativity: The functional metric builds on and extends general relativity, incorporating the effects of time density and local mass interactions within the context of the entire finite universe. In summary, the Time Density & Mass conjecture proposes that direct interactions within the finite universe's space-time fabric can explain action and interaction at any perceived distance, potentially rendering many aspects of quantum mechanics superfluous. This approach introduces a functional metric to quantify the effects of local interactions on space-time, providing a comprehensive classical explanation for phenomena typically described by quantum mechanics. This concept aligns with and extends the predictions of general relativity, offering new insights into the relationship between mass, time, and space, which can be explored through observational and experimental methods. As we know from Albert Einstein's General Relativity, Gravity can affect Time through an effect known as gravitational time dilation. This effect measures the amount of time that has elapsed

between two events by observers at different distances from a gravitational mass. Whilst this is interpreted from our current point of view that Time will slow as an object gets closer to a large mass or as in Special Relativity as it gets closer to the speed of light. We rarely consider the other effects in play. In fact, if we do the 'science', police will come raiding, screaming at you that you can't do this !!!! 😃 Well, guess what? They are wrong. Whilst it is not common practice, many aspects of Relativity are interchangeable. As an example, how many people know that for an object approaching a large mass Time stays constant, as in it does not actually slow down or speed up? I know this sounds counterintuitive to that which we already understand. However, it is vitally important to understand the differences between observing from our perspective and that which is actually experienced by the object. If we don't consider this, we end up with misleading interpretations like; "Time slows as you approach the speed of light" or "Time stops if an object was to achieve the speed of light". Whilst almost true from our perspective, there is no change in Time for the object. Hold on, isn't Time dilation a real thing? Well, this depends upon what you define as being real? In Diagram A (see attached pic). In Relativity to both Observer A and Oberver B, both will perceive Time to pass normally. However, in comparison, their relative volumes of space-time are entirely different as shown in Diagram B (TDM interpretation). It is this difference in the volume of space-time that is perceived as time dilation, but only if either observer enters their counterparts' volume of space-time. As in, Time dilation is not an actual effect. It is an outcome comparison. As in it is as if Time has slowed down or sped up. In reality, Time has remained a relative constant in each scale. So when somebody shares that dreaded meme that says that "Time slows down as you approach the speed of light". You can correctly reply. "No, it doesn't". "It's an 'as if', 'outcome effect'". OK whilst this seems to make sense in scale terms of being near a large mass. Why would it occur as we speed up? This is very simple, resistive compression. As we speed up, the compressive forces of relative space will act upon us, progressively altering what scale in space-time we are relative to. So the faster we go, the greater the compressive forces acting upon us. Literally changing our relative scale in space-time. When we come to a halt. Fewer forces then act upon us, putting us back in the same scale range as before. What we now find, proportional to the forces that acted upon us, our progression of relative time has been on a different scale. When we stopped, that scale changed back (proportional to our newly achieved location). However normal space-time progressed with a less aggressive compression ratio. Meaning not as much relative time has passed. Hold on, this suggests that normal space-time progresses slower and compressed space-time more quickly, but doesn't Relativity say the opposite? This is what occurs when you correctly work from the relative and non-relative observations. Things appear inverted.
(Observer 1) Normal Space-time A----------B (Observer 2) Compressed Space-time (near a black hole) a----------b Technically as you can see observer, 1 in scale terms takes longer to get from (A) to (B) than Observer 2 does. This means the relative time for observer 1 has in comparison a longer duration than the relative time of observer 2. However, if you look at it in terms of being observer 1. Because observer 2 gets to point (b) quicker, in comparison to observer 1, it will be as if time has slowed for observer 2 compared to observer 1. As in 1 day spent in observer 2’s volume of space-time would be two days in observer 1’s volume of space-time. Hence why we say it is like time has slowed for observer 2. Yet there has been no acceleration/deceleration of time; it has remained a relative constant; it's only the volume of space-time time that is different when you switch between such

volumes of space-time. Then and only then will that difference become apparent to you. As in the “as if outcome effect” which is more commonly referred to as Time Dilation. For whatever reason, this volume aspect (scale) of space-time is rarely touched upon in relativistic physics. As I have mentioned numerous times in the past, this may have something to do with the fact that Albert Einstein was unable to make his volume interpretation work. As in when he isolated a single frame of reference within finite space-time, this would alter that frame of reference from that of other frames of reference (violating Lorentz invariance, which underpins the first postulate of special relativity). As many of you will be aware, the TDM conjecture resolved this problem by defining the properties of a scale inertial frame of reference outside relative finite space-time. Thus placing it outside the remit of Lorentz Invariance. Even if you try to plug it into Lorentz invariance and say the frame of reference is altered, by its very nature every scale inertial frame of reference would be instantaneously altered as well, meaning that instantaneously is no variation. We would never be aware of that alteration as each alteration defines the basis of our relative laws of physics in the first place. (If you are part of a system, you cannot observe alterations to the very foundation of that system, as the alterations would be of the same system that defines you) TDM is a robust little bugger 😃 Your can read some raw excerpts from my latest upcoming book on the subject; Time Density & Mass (TDM) 'The Hummingbird Universe' Quantum Mechanics and Photosynthesis https://www.youtube.com/watch?v=_RSKI5A_lsg Quantum Mechanics superposition offers an apparent explanation of how the exciton reaches the cell's core. Would you be surprised to find out that there is another explanation that does not require Werner Heisenberg's Uncertainty or vague QM reasonings to achieve this? Those of you who have studied TDM will be aware of how it virtually quantifies space-time by creating an increment of scale-related measurement based upon the entire finite universe (Effectively a measure which exists in what you may understand as the very fabric of space-time, thus circumventing the failures in Albert Einsteins 'Aetheory'). Let's look at this using a Special/General Relativity example. Normal Space-time (Observer 1) A------------------------------B Compressed Space-time (Near a black hole) (Oberver2) a----------b As the second postulate of Special Relativity shows us, both Observer 1 and Observer 2, will agree when measured that the speed of light in a vacuum is approximately 3x10^8 ms^-1. Which is the constancy of the speed of light that is often taught. However, the Observers are unaware that Observer 2's measurement of 1 metre equates to just 0.5 metres compared to Observer 1's measurement of 1 metre. Thus in comparison terms, whilst in relative terms, observer 2's speed of light is 3x10^8 ms^-1, when compared to Observer 1's measurement of the speed of light, this equates to being 6x10^8 ms^-1. Yet no law of physics is being broken here. TDM refers to these apparent superluminal outcomes as pseudo-superluminal (thus avoiding confusion) Direct Interaction (Time Density & Mass (TDM) conjecture). As we have established pseudo-superluminal outcomes as the result of the comparison of two or more scale inertial frames of reference. Let's look at how TDM describes a 4-dimensional object. "A 4-dimensional object is, in fact, a 3-dimensional object (or parts of) which is too large/small to directly interact with the current scale inertial frame of reference". Basically, unless an object (or part/s of it) in Observer 1 or 2's relative scale matched that of the other observer's scale, then either observer would consider the other's relative scale to be composed of 4-dimensional objects. As only objects of a similar scale in the very fabric of space-time can interact with each other. So now, instead of looking at this as Observer 1 & 2's

separate relative scales. Let's imagine that point (A) is observer 1's relative scale, and point (b) is observer 2's relative scale. This now means that there is a significant difference in scale between point (A) and point (b). So what would happen if, in space-time terms, you compressed an object at point (A) to be the same scale as objects at point (b)? Answer: The object would instantaneously interact with point (b) no matter how far apart we percieved the two points to bee. How is this possible? There is such a vast difference in scale between point (A) and point (b) in space-time terms. Thus the object in this case, becomes physically too small to interact with the matter that we perceive to exist between point (A) and point (b). Without this interaction, it perceives no distance at all. It just directly interacts with similar scaled matter, which in this case is point (b). So how does this explain what QM presents as superposition? Direct Interaction does not require vague philosophical, mathematical arguments of being in all places simultaneously to achieve interaction over a perceived distance. It does so using standard proven, and directly measurable aspects of physics. Such as If something is too small/large to interact with a barrier, it will be as if the barrier does not exist). Drop a small stone through the metal grid, which is larger than the stone; as long as it does not touch the metal, it will be as if that grid is not there (falls unimpeded). Now drop a larger stone which cannot fit through the holes, and the grid will hold it back. This establishes how the exciton can consistently get to the cell core, no matter what pathway is perceived externally by us to exist; as to the exciton, there physically isn't a path to follow; it just directly interacts with the core no matter where the photon entered the leaf via Direct Interaction. Wave particle duality. If you have studied physics, then one of the experiments that you will have been presented with is the Double Slit experiment. (I wont go into details about that here. Other than this is presented as an example of how electrons are both a wave and an particle, the Wave particle duality. However, what happens if you introduce Direct Interaction (From TDM) into the mix, where interaction of objects results in them changing position in space-time. 1. Interference patterns will occur, not as the result of wave and or superposition, but as the result of the object (in this case electrons) altering it's relative position in what we observe as our scale inertial frame of reference. In the reality the electron is not moving anywhere, it is just directly interacting with similar scaled matter in the fabric of space-time. 2. This also explains the observed effect of patterns building up as you fire singular electrons. Only when you measure it (effectively binding its Time Density Signature (TDS) to that of the current scale inertial frame of reference) does it act as if it is a particle. What does all this mean for wave particle duality? Simply put, as TDM removes indeterminism of where an electron will hit the screen, it does not need to be a wave to create an interference pattern, it could just as easily be a particle that is subject to Direct Interaction. Which calls into question over 100 years of interpretation. On a sub note, there is a pretty cool thing you can do; imagine the double slit experiment, which instead of measuring equipment, you introduce an electromagnet which directs the electrons to create an image (for this example, imagine it is the > C symbol from TDM). Now switch off the electromagnet (But leave it in place in the experiment), and reduce the emmissions to stream of singular electrons. What do you think happens? Try and explain that image outcome without TDM 😉 Apparently there is a nobel prize for anybody that can explain the outcome where patterns still form when the measurement equipement if switched off (The electromagnet creates the same outcome effect as the measurement equipment in this respect). It should be noted, matter does not care if you percieve it to be in the past, present or future, it just Interacts with similar scaled matter in the

very fabric of space-time. The previous interaction which directed the electrons to form the image, created a 4-dimensional object, which includes the electromagnet. TDM defines a 4-dimensional object as being "A 4-dimensional object, is in fact a 3-dimensional object (or parts of) which is too large/small to directly interact within the current scale inertial frame of reference". As mentioned in other content, only objects (Or parts of) of a similar scale in the fabric of space-time can interact with each other. Parts of a 4-D objects, that we observe as 2 or more 3D objects on our scale, literally carry a physical chronology of interaction with the 4-D object. If you phase through the scale inertial frames of reference of the object, you can literally observe the interactions that occured, are occuring or will occur in respect of your relative observation. In the case of this experiment, residual effect of the direct interation (That created the 4-D object), is still strong enough to act upon singular streamed electrons. In case you are wondering, yes, the Chronology of TDS (Time density signature) can be modified to store or transfer information to anywhere within an infinite space-time continuum. When Faster than Light (FTL), does not actually involve speed at all. FTL does not involve any speed at all; it's a perceived outcome effect. Whilst Physics was aware of this possibility as far back as the 1920s. It would over 60 years before anybody actually created a model which makes this a viable and easily understandable process. The model in question is the Time Density & Mass (TDM) conjecture. TDM came about in respect of solving the issue that physics pretty much breaks down at zero. It must never be confused with being the actual structure of the universe; it is only a tool used to translate the infinite complexity of space-time into terms that finite physics can work with. How TDM goes about this is by taking an inertial frame of reference and then expanding it so it encompasses the finite universe. Thus defining a single increment of scale-related space-time. Our current finite universe is defined as TDM state 0; the next, which exists just beyond our relative zero, is TDM state 1, then 2, 3, 4, 5, 6, 7... and so on for infinity. It also works the other way with larger/lower density TDM states -1, -2, -3, -4, -5, -6, -7... and so on for infinity. (A bit like a Russian doll where one exists inside another). The numbers are a vital component, as they define the achieved relative scale inertial frame of interaction, and since each of these TDM states is effectively an entire scale-related universe, all the standard laws of finite physics apply. Many see the Planck length as the minimum. This is just a relative value in a single TDM state; in TDM there are infinite possible smaller or larger relative minimums. Concerning the earlier reference to zero. In TDM, zero becomes relative to the scale inertial frame of reference. It can be considered as being a virtual boundary as opposed to a hard boundary. As in, there is always another scale range beyond relative zero. Giving finite physics infinite possible scale versions of itself. An infinity composed of scaled finite universes. Regarding outcome equivalents, these occur as the result of a comparison of relative scales of interaction. TDM state 0 (Our current scale inertial frame of reference, the finite universe) speed range 0 to C (0 to approximately 3x10^8 ms^-1) TDM state 1 (The scale inertial frame of reference just beyond our relative 0) in relative terms, the speed range is 0 to C (0 to approximately 3x10^8 ms^-1) however, when compared to TDM state 0, this equates to C to 2C (approximately 3x10^8 ms^-1 to 6x10^8 ms^-1). TDM state 2 (The scale inertial frame of reference just beyond the relative 0 of TDM state 1) in relative terms, the speed range is 0 to C (0 to approximately 3x10^8 ms^-1) however, when compared to TDM state 0, this equates to 2C to 3C (approximately 6x10^8 ms^-1 to 9x10^8 ms^-1). TDM state 3 (The scale inertial frame of reference just beyond the relative 0 of TDM state 2) in relative terms, the speed range is 0 to C

(0 to approximately 3x10^8 ms^-1) however, when compared to TDM state 0, this equates to 3C to 4C (approximately 9x10^8 ms^-1 to 12x10^8 ms^-1). ...and so on for infinity. If you are relative to any given TDM state, then the two postulates of special relativity hold, as in you will agree with your counterparts in other TDM states that all the major laws of physics are the same, and the speed of light in a vacuum is approximately 3x10^8 ms^-1. However, TDM allows you to also show the significance in scale. So whilst relative to you, a metre is a metre. If you could compare a metre in TDM state 0 to that of a metre in, say, TDM state 500. You would see that that latter is actually over 500 finite universes smaller. For those of you already familiar with the concept of normal space-time v space-time approaching a black hole, you will be aware that General Relativity already describes, to a much lesser degree, the basic concept of TDM. Unlike Special or General relativity, which only deals with the singular finite universe, TDM allows you to apply the same principle to infinite possible scale finite universes, effectively allowing you to map what you may understand as the very fabric of space-time. To understand how there are such vast differences in perceived speeds, it is worth noting how TDM defines a 4-dimensional object. "A 4-dimensional object is, in fact, a 3-dimensional object (or part of) that is too small/large to directly interact with the current scale inertial frame of reference." In other words, only objects (or parts of said objects) of a similar scale in the very fabric of space-time can interact with each other. It is the relative linear observation of these objects that are standing still at different scales of interaction that creates the illusion of movement. (If you are in deep space with no other visual reference, and you approach an object at 0.25C, is it you that is moving or is it the object, or in fact, are you just propagating through different scales of interaction without any movement?) It is this very structure that leads TDM to present the postulate that, like time, "distance is relative to the observer". If an object is too small or too large to interact with the matter that we perceive to exist between a given point (a) and a point (b). Then it has nothing to define distance; it will (if of the same scale) just directly interact with point (b). What is commonly incorrectly called folding space-time. There is no need for exotic particles or playing dice with the universe to achieve this; it is just basic direct interaction of similar scaled objects in the very fabric of space-time. You can read some raw excerpts from my latest upcoming book. Time Density & Mass (TDM) 'The Hummingbird Universe' Here: https://www.facebook.com/TimeDensityMass (Hydrogen Atom) Whilst we all know that according to Maxwell's equations that the negatively charged electron should continuously emit electromagnetic energy. Since it is continuously accelerating in its circular orbit. As such the electron would spiral toward the nucleus. Whereas Heisenberg's uncertainty principle asserts that this cannot happen. If the electron was to spiral towards the nucleus, its position would be more and more precisely known. If the electron was nearly at the nucleus its position would be known within about 10^-15 m. The uncertainty in the momentum of the electron would have to increase by a factor of 10^10. Allegedly there is no way for the electron to gain this amount of energy. The loss in electrostatic potential is nowhere near enough. Or is it? Now let's consider the TDM conjecture (that time is composed of scale inertial frames of reference). In relative observation terms, the Heisenberg uncertainty assertations would be a good guess, however, if you then consider that this relative scale is a quasi-static observation (a relative perception) and that in fact, the atom would be subject to constant compression in space-time. Not only does the electron spiral towards the nucleus, but the nucleus is also compressed proportionately in space-time. Creating the illusion of maintaining an orbit. In this manner

uncertainties assertations remain probable, but surprisingly, so do Maxwell's. For those that say that this would not be possible, maybe they should consider what occurs as you approach a high gravitational source like a black hole? So the question that brings to the fore, Do Maxwell's equations actually predict the orbit of an electron in an atom that is subject to the effects of constant increasing compression in space-time, Meaning that the assertion of Heisenberg's uncertainty is a relative virtual observation guess (A snap shot). It is over 4 decades since I first came up with Time Density & Mass (TDM), yet it still surprises me just how much this little glorified tape measure can do. As in how many people can actually claim that they not only resolved the Einstein–Podolsky–Rosen paradox (EPR paradox), but at the same time rendered over a Century of Quantum Mechanics to be absolutely Superfluous. As in you no longer need Werner Heisenberg's 'Uncertainty' to explain action/interaction at a distance. Concerning the EPR-Paradox, (You can read about it here: https://en.wikipedia.org/wiki/EPR_paradox) " They argued that no action taken on the first particle could instantaneously affect the other, since this would involve information being transmitted faster than light, which is forbidden by the theory of relativity." Basically TDM, recognizes the shortcomings of physics, that physics breaks down at the first event horizon/Singularity and uses this to its advantage. In the TDM conjecture, the relative finite universe is used as a known scale related increment of measurement. Which is then applied to the very fabric of space-time. These are referred to as TDM States (Scaled finite universes), each one is exactly the same as ours, but smaller or larger, compared to us. Our Current TDM state is zero (the reference point), smaller scale/higher density finite universes (TDM states) are 1, 2, 3, 4, 5, 6, 7... and so on for infinity. Larger scale/lower density TDM states are -1, -2, -3, -4, -5, -6, -7... and so on for infinity. So what makes TDM any different to previous Multiverse theories? 1. TDM makes absolutely no claim as to this being the actual structure of the Universe. It's more like a Babel Fish ('Hitchhikers Guide to the Galaxy' Douglas Adams). Translating the infinite complexity of the Universe into terms that we as mere Homo sapiens can understand. 2. The Addition of scale factor numbers when compared to our scale of interaction. This part is a real game changer, as with a scale factor you have measurement, where you have measurement you can apply standard physics. Albert Einstein presented that the "Inertial frame of reference expands and contracts to keep the speed of light constant". TDM presents that whilst the scale of the inertial frame of reference increases or decreases, the speed of light relative to that scale remains constant. Essentially both are saying the same thing, except TDM is now giving an actual 'scaled' increment of measurement to the inertial frame of reference. Something else also occurs when you take this scale related approach when you compare relative constants like the speed of light. Whilst in any given TDM state, the second postulate of Special relativity still rings true. "The speed of light in a vacuum is the same (approx' 3.0 x10^8 m/s) in all inertial reference frames regardless of the motion of the observer or source" When you compare these relative scale constants as an external observer to that system some very interesting occurs. C= speed of light which is approximately 3.0 x10^8 m/s. TDM state 0, our current relative finite Universe, speed range 0 to C TDM State 1. In relative terms (As presented in special relativity) the speed range is 0 to C, however when compared in scale terms to TDM state 0 it is C to 2C. As in 3.0 x10^8 m/s to 6 x 10^8 m/s. TDM State 2. In relative terms (As presented in special relativity) the speed range is 0 to C, however when compared in scale terms to TDM state 0 it is 2C to 3C. As in 6.0 x10^8 m/s to 9.0 x 10^8 m/s. ... and so on. These are not real speeds in the conventional sense, they are 'apparent'. However, the outcome

between a point (a) and (b) are is the same to the observer of that scale, as if an object has exceeded the speed of light. In reality there is no distance involved at all. Imagine point (a) was in our current scale, and point (b) was in the next scale TDM State 1. If you shifted an objects scale of interaction from point (a) to point (b), it would be too small to interact with the matter that we perceive in between, so to us there is distance, but to the object there is no distance involved at all. However, to us the limit on how long it would take light to get from point (a) to (b) as we observe would mean that the object appears to exceed the speed of light. TDM calls this Direct Interaction, were objects of a similar scale/density in the fabric of space-time interact with each other. In the case of so-called Quantum Entanglement, TDM presents that the action of Entanglement creates a higher density object. Which exists entirely in another scale inertial frame of reference. Due to the limitations to our range of interaction, we can only see parts of that object. As such we observe two or more entangled objects. The reason why the entangled objects reflect characteristics no matter how far we move them apart in our relative scale, is that they are in fact just parts of that singular object on another scale. (Einstein-Rosen-Podolsky and later John Stewart bell referred to this as "local and non-local". None of them realizing that because there is no actual distance involved, all are defined as local) A tesseract is a theoretical example of this type of 4 dimensional objects in which we only ever see parts of it in our 3 dimensions. There you have the resolution of the Einstein–Podolsky–Rosen paradox (EPR paradox), no speed or distance is actually involved. However, because you can also be precise about this interaction you do not require Werner Heisenberg's Uncertainty, thus Quantum Mechanics also becomes superfluous. There is not many people alive who can genuinely claim they have bettered the likes of Albert Einstein, Niels Bohr, Boris Poldolsky, Nathan Rosen and John Stewart Bell. I guess I have to reluctantly learn to accept that I am one of those people. Time Density & Mass (TDM) ...part (II) Time Density and Mass (TDM) Part II How can two or more objects in our range of observation be the same object? The simple answer to this (which I will expand upon) is; "Objects of a similar scale will only interact with objects of a similar scale range, so if the matter in between is dramatically different in scale to parts or all of that object. It literally does not even know that the rest is there. So what we measure as distance as being the on that different scale to the object, does not exist to it, therefore there is no physical distance between part or the whole of the object between what we class as point A and point B. To it, this is direct interaction". Some may say, well that is easy, but it makes no sense in physics. As there is no discernible difference in the sizes of point A or point B. Here we come to an interesting thing about relativity, If you are relative to a system, you are the same scale range as everything in that system. So you would not know if that object in the distance that appears tiny to you, is not genuinely tiny. You could say, well I move closer to the object and prove it is not tiny. Guess what? Such an action does not prove your argument, as for you to become relative to the object it can just as easily be argued that you have undergone compression, which makes you of relative size to it, but you are actually many times smaller than you were previously. So another argument is if that was the case if I returned to my previous location I would be tiny. Nope! There are several scenarios here, but the least confusing is that your original location, is moving in space, in doing so it is being compressed (as the result resistance acting upon it), when you try to return you will be compressed again to catch up with that new compression ratio. Einstein described this as motion slows time. TDM says compression (resistance to movement) speeds up interaction. Compresses in bigger steps than the normal progression. Essentially it is the

same thing, however, TDM is apparently doing the impossible. It is giving time a structure a physical quantity in space. As in the range of Interaction defines relative time. Increase/decrease the relative density you can alter an object interaction in space and time. What is this mystical Structure that allows basics physics to do this? Time Density & Mass (TDM) ...part (III) Time Density & Mass Part (III) To understand TDM we must first learn what it is not. Unlike the wealth of theories out there, the TDM conjecture makes absolutely no claims at being the structure of the Universe. In fact, it has more in common with Douglas Adams fictional Babel Fish (Hitch-hikers Guide to Galaxy) than that of some great theoretical structure. As in it helps physics interpret the complex language of the Universe in terms that you or I as a mere Homo-sapiens can understand. So how exactly does TDM achieve such a momentous task? Well one of the fundamental issues in physics is that despite all that which it can describe, before TDM there was no way to describe in physical terms, an object which is less than zero. As in you hit the first even horizon and it may as well be the hardest material in the Universe as nothing can really define anything beyond it. Obviously, for a visual thinker like me (Severe Dyslexia) I can easily conceptualise objects beyond zero, but physics lacks the ability for these to take a recognised form. It is because of this inability of physics and the need to address certain interactions that defied the normal scientific models. Concepts like Quantum Mechanics and string theory were born. Both of which have been brilliant mental masturbation for Mathematicians and Physicists, but in reality, they only offer philosophical answers, not scientific fact. It is for this very reason that Albert Einstein did not hide his passionate dislike of Quantum Mechanics as portrayed in his rather famous quote “God does not play dice with the Universe”. Had Neils Bohr and Albert Einstein been alive today, the argument between General Relativity and that of Quantum Mechanics would still be raging on, to be honest in many respects it still is. Bohr and Einstein were pretty much correct. However even with Bohr's more philosophical representation of physics. They still did not actually have the means to breach zero. The TDM model. Imagine the physical finite Universe, which in many respects is described remarkably well by physics. How do we use that which we know to measure, that which we do not know? Well, many of you may have heard the numerous different Multiverse theories out there, or more specifically those that present the Universe is one universe inside another and another inside that other and so on. A sort of Russian doll Universe where you open one up to find another just alike but smaller inside. If you were able to imagine that then you have the basis for the TDM conjecture. So what is new about that? Well what TDM does next, is so unbelievably simple. That most people including many physicists struggle to accept it. It gives each scale Universe a number, in respect of how many scale ranges (Scale finite universes) or TDM states it is when it is compared with our current state. Our finite Universe (All that physics handles with relative comfort) is TDM State 0. The next scale (Just Beyond our ‘relative zero) is TDM state 1, then beyond TDM State 1’s relative zero point is 2, then 3, 4, 5, 6, 7 and so on for infinity… Also in the opposite direction (Larger scale, lower density), TDM state -1, then -2, -3, -4, -5, -6, -7 and so on for infinity… Why is this simple numbering so revolutionary? Because physics relies upon maths and maths needs measurement to work with and the scale range numbers (TDM States) are a form of measurement which physics can work with. In so doing, say you were relative to TDM state 10. You can now be described as being 10 times smaller than our relative zero point, in fact, you have crossed 10 relative event horizons to be relative to that scale range. Physics can now envisage objects less than ‘relative zero. Next time... Pseudo Superluminal velocity,

how we can easily exceed the apparent velocity of light without breaking the laws of physics. Time Density & Mass (TDM) ...Part I Time Density & Mass (TDM) (Part I) Albert Einstein presented that eventually some deeper theory, incorporating quantum mechanics, might come along that would restore “real” values to all possible measurements on an entangled particle. He wanted a theory that, in his words, would accommodate “independent existence of the physical reality present in different parts of space.” This is exactly what TDM does, however in doing so it actually makes Quantum Mechanics superfluous. How does TDM present the answer to what Einstein sought? "A 4-Dimensional object is, in fact, a 3-Dimensional object that is too large or too small to directly interact in its entirety at a single location in our relative 3-Dimensional scale of Interaction". What this means in the terms of Quantum Entanglement is that by interaction the photons become a higher density object. This means technically a larger object that is smaller than us. However, we can only ever observe part or parts of that object in our scale. As the rest is too large or too small to exist here. So how can there be a distance between them if they are the same object?