The concept of Zero Time

When one observes the universe around oneself, what is observed is the past configuration of the phenomenon and entities that make up the universe. All physical phenomenon experienced by an entity is considered to have originated from another entity, and is considered to be a “signal” of an event that has as a spacial coordinate that has as its origin, that of the entity from which it “produced” it. The exception to this is the entity itself.

These “signals” are usually referred to as electromagnetic radiation or photons, and fields of force such as gravity and electromagnetic fields.

It may be argued that the physical interaction or collision of two entities is the result of past events leading up to the collision, and these most recent past event is the origin of the entity “signal”. ie the entities physical properties upon collision. eg momentum.

What this means is that, all physical processes and phenomenon that do not originate from the entity concerned, is from physical “events” that have occurred in the past when considering the universe as a whole. What this also means is that an entity cannot have knowledge of the state of the universe beyond the signals it is receiving and interacting with at any given instant in its own measurement of time. This then leads to the conclusion that no knowledge of a “current” status of the universe in its entirety can be obtained.

This is due to the limitation of the velocity of the signals that are received by the entity undergoing interaction with them. The velocity of light, though large, cannot give an instantaneous signal of information of a “current” state of the entity from which it originated from.

However consider that the velocity of these signals or light is infinite. Then there would be no delay between the transmission and receiving of a signal between entities. A true, instantaneous knowledge of the physical state, and location of all entities in the universe would be given. That is, there would be no passage of time between the transmission and receiving of the signals between all entities, and an instantaneous action of forces and physical phenomenon will exist. This is the concept of zero time which is defined as

Definition ZT

Zero Time : The concept that the velocity of transmission of physical forces and phenomenon between physical entities is infinite. This infinite velocity of signals gives no delay, ie zero time, in the transmission and receiving of signals of physical interaction.

Zero time also allows a concept that a universal time would exist, allowing a universal clock to be established such that the universe would have one standard clock for all entities which would be the same. Thus a true instantaneous state of the universe can be measured and determined at any instantaneous time an observer chooses according to this universal clock.

The concept of True Space

In conjunction with the concept of zero time above, is the concept of a true space. If one considers that zero time gives all information of the state of the universe in any instant in time according to a universal clock, then a current state of all the locations or positioning of all entities can be known as well. This is the concept of true space which is defined as

Definition TS

True Space :The concept that the velocity of transmission of physical forces and phenomenon between physical entities is infinite gives the ability to determine the physical locations or positioning of all physical entities in relation to one another at any instant in measured time. The instantaneous zero time measurement of the physical locations or positioning of all physical entities in relation to one another at any instant in measured time is the true space coordinates of any, and all entities in relation to one another.

True space is the concept of a true current status of the positioning of all entities within the universe at any instant in time according to an observers clock.

The concept of Observable Space or the interactions of entities

Observable space is the space that an entity interacts with, where there is a delay between transmission and receiving of the physical signals or phenomenon that cause the interaction. That is, the universe humans live in, observe, and interact with.

This observable space, however does not mean that the concept of true space does not exist and does not play a part in physical phenomenon. Any signal originating from a moving entity, and the interaction of that signal with another entity will occur after the entity has moved to a new location. That is, there is a lag between the signal transmitted as perceived in a zero space by entity A, and it being received by an entity B, and hence B interacting with entity A and vise versa. It also means that with the exception of two entities colliding, interactions between entities may be considered as acting at a distance

Thus all that is observed (ie interactions) by an entity is based upon events previous to the time clock that the entity is referring to as its measurement of time. The current state of the universe in the perspective of the observer, is what the interactions are with the universe at the local location in space that the observer resides. If the observer considers that the coordinate origin is that of the observer, then the coordinates of all physical signals is based on the observer.

If the observer then measures anything from this reference point, that measurement is done based upon a signal from an event in the observers past. That signal may itself have gone under some change or alteration in its journey in space that distorts or alters the measurement of the signal event properties from that from of its original source location, and thus the accuracy of it. Thus observed space can give false or misleading measurements of an event at a location in space that the observation is projected back to the origin from which the event occurred. That is, there is an uncertainty in the accuracy of the measurement being performed of an event that has occurred some distance away and into the past. This leads to the conclusion that the true state or physical phenomenon that make up the universe can not be known beyond a certain level of confidence or accuracy as the further into the past an event is being observed and measured, the greater the chance, and wider the range of alteration of the property being measured becomes.

What this also means is that what is observed may not be what is the true nature of the phenomenon that produced the observed signal or interaction.

What this all means is that what is observed by humans, trying to solve the puzzle of the universe, is that what is observed and measured cannot give a fully accurate picture of the current sate of the universe according to the observers clock. The further back the signals of observation or interaction are, the more uncertain is the current state and the reliability and accuracy of the past phenomenon that created that signal.

The concept of observable space also means that the time lag between transmission and interaction of physical signals between entities is a part of the laws of nature and play a pivotal role.

An inanimate object like the earth reacts to gravitational forces from the locations of other gravitational objects that have spacial coordinates relative to it that occurred in the past. It is reacting to the gravitational pull of the galaxy Andromeda that occurred by measurement to be where it was 1 million years in the past. Its actual true space coordinate would be less distant.

Despite all this discussion of signals from the past interacting with any entity, what force or physical phenomenon any inanimate object interacts with is considered to be the present by that inanimate object. It is only the human mind that can observe, contemplate and interpret these physical phenomenon into ideas and concepts that then become theories or explanations of the universe and how it works.

What all this means is that what is observed and what interactions are being performed and changing the physical state of an entity, or system of entities at a “present” instant of time as perceived by that entity, or system of entities, is on a local scale. Because no real knowledge or ability to observe an entity in zero time or true space as defined above, future interactions and observations become more uncertain to predict the further in time that prediction is made because total knowledge of the current state of the neighbourhood, let alone the universe, is impossible to measure and know.

In this respect, the entire universe is in a kind of quantum like uncertainty principle, but on a longer time scale as due to large distances involved, the uncertainties of future predictions of entity interactions takes longer to occur, and are much slower to materialise and be seen not to conform with past predictions. This is analogies to the butterfly effect of computer science and chaos theory. The inability to measure the inputs to the required accuracy and precision causes an inability to predict future actions beyond a certain time frame or iterative step of the processes.

It may be that the better model of the workings of the universe is one of an iterative step rather than that of

equations. But to create such a model, as with the weather, requires enormous resources of data collection and processing power. Something that may just be not possible to achieve. Thus use of equations, though having errors and not modelling the universe correctly to understand it, may be good enough for making accurate enough predictions and performing calculations that match observation within the limits of a certain time frame and localised expanse of space.