

## Fundamental Event

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In everyday life, an “event” is something which occurs. Specifically, every event has a beginning, a duration and an end. For example, when a pebble is dropped into a pond, the event begins with the initial catalyst of the pebble dropping; next, the pebble contacts the water, the water is disturbed, the wave spreads out in concentric rings and eventually the pond settles back to its original state of calm. The event had a beginning, a duration, and an end.

This concept of an “event” is applicable to our universe. The entire history of our universe can be thought of as a long-duration fundamental “event”. Prior to the beginning of this fundamental event there was a pre-universe; which existed as a single dimensionless point. Since there was no diameter and no volume to this point, there was no passage of time. Time simply existed as present time, with no past and no future. This pre-universe point was surrounded by a volume of nonexistence. There were only two states within this pre-event system; existence and non-existence. Existence was in the form of an unchanging point with an existence value of 1, while non-existence was the surrounding volume with a value of 0. Many isolated pre-universe points existed within this system; each pre-universe point had an existence value of 1, surrounded by non-existence with a value of 0. These individual isolated pre-universe points were separated by some distance, so non-existence did have the concept of volume and distance. It is not possible to combine two preuniverse points to form a value of 2; you can’t have twice existence. In the same way, you can’t split a pre-universe point into two points with a value of .5 each; you can’t have one-half existence. This existence/non-existence system is binary. It is very important to recognize that, before the beginning of an event, each pre-universe point existed in an unchanging state; each with an existence value of 1. There were no units of measure within each pre-universe point to differentiate big from small; existence simply equals 1. The pre-universe’s 1 existence value is very important because this existence value survived into our universe and is measurable. Therefore, the conservation of this 1 existence value indicates our hypothetical pre-universe point was the direct precursor to our universe.

Something precipitated an “event” to begin for our pre-universe. The something that precipitated this “event” could have been “God”, as many believe, or it could have been some other catalyst outside our pre-universe. The “God” catalyst is a valid hypothesis and worth considering. However, in the “some other catalyst” category, one possibility is that a collision occurred between two pre-universe points. These two pre-universe points could not

combine to form an existence value of 2, so they bounced off each other. Our pre-universe suddenly experienced the novel concept of outside and inside. The impact with the other pre-universe occurred from the outside. Consequently, since there is an outside, there must be an inside. An inside indicates the existence of an interior volume and an outside indicates an outer shell. Our universe suddenly had the physical characteristics of an outer shell and an interior volume. The impact between these two pre-universe points occurred at some velocity, so our universe also received a velocity characteristic. At the beginning of this fundamental “event”, our universe consisted of an outer shell representing present time and an interior volume representing future time. This present-time shell received an initial inward speed equal to the impact velocity between the two pre-universes. This inward speed characteristic is important; when this inward speed of the present-time shell is multiplied by the area of the present-time shell, the product is always exactly equal to the value 1 (with no units of measure). The impact catalyst effectively transformed the pre-universe nondimensional point with an existence value of 1 into an inward moving present-time shell with an existence value of 1. The 1 existence value for the pre-universe carried over to our universe. The mathematical computation of this 1 existence value for our universe is demonstrated shortly.

The next part of the event is “duration”. Duration is everything which happens as the event progresses from the beginning of time toward the end of time. The beginning of time is located at the outer shell of our universe, while the end of time is inward. At this whole-universe scale, duration is quite simple; the present-time shell moves inward toward the end of time. However, at a much smaller scale, the universe becomes much more granular and complex. The present-time shell has a surface area which creates a problem of simultaneity, in that the surface area can’t be a solid area of present time. To resolve this simultaneity issue, at the beginning of duration the present-time shell dissolved into a nearly infinite quantity of unique granular point locations. These unique point locations are individual points of “dark matter”. At this very small scale, the beginning universe consisted of a dense shell of individual “dark matter” points, surrounding a volume of future time. Future time, however, can’t be perceived from the present-time perspective of the individual “dark matter” points, so the entire interior future time volume perceptually disappeared. With the future-time volume perceptually gone, the beginning universe was an incredibly small volume containing a nearly infinite quantity of “dark matter” points. This is the view

of the universe we theorize existed at the moment of the “Big Bang”; a lot of matter compressed into a small volume. During the duration phase of the event these points progressed inward at the initial inward speed, toward the unseen future and away from the beginning of time location; experiencing what we call the “Big Bang” and subsequent expansion of the visible universe. The size of the visible universe increased as the distance these points progressed inward away from the beginning of time. Many, but not most, of these individual points quickly combined into stable six-point clusters called protons and neutrons, with electrons formed as a byproduct. (Quarks are pairs of two dark matter points.) Each individual point experienced (and is experiencing) its own duration phase as it proceeds inward away from the beginning of time. Each of these nearly infinite individual points, whether as individual points of “dark matter” or clusters of points (protons

and neutrons), is currently experiencing duration.

When examining the dynamics of the universe, there is an interesting set of relationships between distance and time; and their respective first and second derivatives. This relationship between distance and time was established at the formation of the universe. Prior to the Big Bang there was no distance and there was no time. The relationships are summarized in the “distance and time table” below; whereby distance and time are at level 1, speed and area are at level 2 (1st derivative) and acceleration and change in area are at level 3 (2nd derivative). There is a direct correlation between this table and the fundamental dynamics of the universe. Future time within each dark matter particle is presented as a volume in this table, instead of as a perceptual singularity.

**Distance and Time Table**

<b>Level 1:</b>	
<p><u>Distance to the End of Time - “r”:</u></p> $r = \sqrt[3]{\frac{3V(f)}{4\pi}}$	<p><u>Volume of Future Time - “V(f)”:</u></p> $V(f) = \frac{4}{3}\pi(r)^3$
<b>Level 2 (First Derivative):</b>	
<p><u>Inward Speed of Present Time Shell:</u></p> $Speed = \frac{1}{4\pi\left(\sqrt[3]{\frac{3V(f)}{4\pi}}\right)^2}$	<p><u>Area of Present Time Shell (Matter):</u></p> $Area = 4\pi(r)^2 = 4\pi\left(\sqrt[3]{\frac{3V(f)}{4\pi}}\right)^2$
<b>Level 3 (Second Derivative):</b>	
<p><u>Acceleration of Present Time Shell:</u></p> $Acceleraton = \frac{1}{6\pi V(f)\left(\sqrt[3]{\frac{3V(f)}{4\pi}}\right)^2}$	<p><u>Change in Area of Present Time Shell (Mass):</u></p> $Change\ in\ Area = 8\pi(r) = 8\pi\sqrt[3]{\frac{3V(f)}{4\pi}}$

At level 1, in the left column, is the distance to the end of time and, in the right column, is the volume of time remaining until the end of time. At level 2, in the left column, is our speed of inward motion through time and, in the right column, is the area of present time. At level 3, in the left column, is the rate of acceleration in our motion through time and, in the right column, is the rate of decrease in the area of present time. This distance and time table is useful in understanding the relationships between the fundamental dynamics of the universe. The information in level 1 informs us about the size and duration of the future. Level 2 and 3 represent much more familiar dynamics of the universe:

Level 2 left – the speed of the present time shell is equal to the **speed of light**. (Note: speed of light measurement in the “macro world” is always constant because quantum mechanical spin in “normal” matter causes time dilation)

Level 2 right – the area of the present time shell is equal to “**matter**”. Matter quantifies the “something” exiting at the current location in time for an individual particle.

Level 3 left – the acceleration of the present time shell is equal to the acceleration of the speed of light (without the mitigating effect of time dilation). More significantly, it is equal to **4π times gravitational acceleration** and is, also, equal to the current marginal rate of accelerating expansion of the universe.

Level 3 right – the change in area of the “NOW” time shell is equal to “**mass**”. Mass is the rate of change in the quantity of matter existing in an individual particle with the passage of time. The additional or subtraction of mass to a particle is required for a change in a matter particle’s location in time.

Existence Value = Speed x Matter (see distance and time table above):

The product of the speed of the present time shell formula times the surface area of the present time shell formula is the existence value of present time at any specific future time volume V(f):

$$\text{Speed of Present time shell} * \text{Shell surface Area} = \frac{1}{4\pi \left(\sqrt[3]{\frac{3V(f)}{4\pi}}\right)^2} * 4\pi \left(\sqrt[3]{\frac{3V(f)}{4\pi}}\right)^2 = 1$$

**The total existence value of a particle at present time is always a constant value of 1.** The accelerating speed of the present time shell acts to maintain this constant total existence value as the surface area of the present time shell gets smaller with the passage of time. The total existence value remains constant as the present time shell accelerates inward toward the end of time at the centre. Therefore, the existence value of 1 is conserved throughout the duration phase of the fundamental “event”.

[An interesting side observation from the above table: (Matter x Acceleration) = (Mass x *speed*<sup>2</sup>). Albert Einstein would be so pleased.]

The end of this fundamental “event” is at the close of the duration phase when the individual points arrive at the end of time location at the centre of the unseen future-time volume. At the end of time, the universe will coalesce back into its original state; as a single non-dimensional point with an existence value of 1. Existence will have been conserved throughout this entire fundamental “event”. The event will then be over.

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