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A CONTINUUM SPACE IS THE INFINITELY GREAT

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ABSTRACT. An infinitely small quantity is defined as a one-dimensional quantity of finite length but with sizes of space, while an infinitely great quantity is reached by the superposition or accumulation of infinitely many finite quantities, by the way of the change in direction. The change in direction indicates that there is a jump from a finite quantity to infinitely many finite quantities (infinitely great). The form of the manifestation of the infinitely great is one quantitative continuum that cannot be operated by any algorithms and all parts of space we see is this one quantitative continuum. Any value are this single quantitative continuum that indicates the infinitely great and compresses any quantities outside of it to nothing. As a result, the infinite exact value of a circumferential length (π) has been obtained here.

1. INTRODUCTION

The biggest mystery of the universe is the infinitely great (infinity). Infinity originates from the concept that the universe is boundless and can be understood as the infinite accumulation of finite quantities that ceaselessly but gradually approach infinity. In this sense, infinity is the process of overcoming the finite. However, the concept above needs to be clarified. In axiom 1, a length (such as 1metre)

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is a finite quantity of a non-continuum. From this finite quantity, the idea of infinity can be shown. The superpositions for extending from the infinitely small to the infinitely great are executed in units of 0 in axiom 1. Starting from the first 0, the continuous superpositions are gradually close to given length quantities. Furthermore, we can say that the superpositions to be carried on forever will approach the infinitely great if they exist. Consequently, the characteristics of extending from the infinitely small to the infinitely great in axiom 1 can be described as follows: for any given length quantity, there is already a larger length quantity than it. In this sense, infinite quantities overcome finite quantities, and there are no boundaries (boundless) for the universe. Assuming the infinitely great, a quantity cannot be infinitely great if there is a value larger than it. Thus, it is illogical that adding a 0 will shift a value from the finite to the infinite. In addition, it is also illogical for us to say that the maximum quantity (infinitely great) is nonexistent because for any given length quantity, there is already a larger quantity than it. Therefore, it is untrue to state that infinite quantities overcome finite quantities. Furthermore, it is incorrect to state that the universe has no boundaries. Consequently, axiom 1 needs to be revised.

2. Preliminaries

Definition 2.1. *The infinitely great is redefined as the accumulation of infinitely many finite quantities in existence. It is the open quantity that we cannot reached it by extending finite quantities forever and we can't talk about anything outside of it and it can compress any quantities outside of it to nothing. .Here, the concept of the accumulation of infinitely many finite quantities is equivalent to the concept that you cannot reach infinity by forever extending finite quantities. In Axiom 1,there are sequential superpositions that are gradually close to a given length quantity. There are also superpositions that are carried on forever and will reach an infinitely great and overcome the finite quantities ,However,the new definition of the infinitely great is that sequential superposition of the infinitely small are carried on forever but cannot reach the infinitely great. We define this revision of axiom 1 as axiom 3.*

Definition 2.2. *The superpositions of infinitely small are not close to the infinitely great owing to even upon extending forever of infinitely small can aslo not reach the infinitely great.In other words, quantities of continuous superpositions of the* *infinitely small remain only in the finite range, and the size cannot be compared between the infinitely small and its quantities of superpositions (infinitely small is the same size as its quantities of superpositions). Furthermore, there are no minimum and maximum quantities in the finite range. In addition, the front (decrease) and back (increase) infinitely small quantities can be randomly extended without bounds in the finite range. Therefore, it is meaningless that infinitely small is 0. Instead, the infinitely small is defined as a one-dimensional quantity of finite length whose size cannot be compared in a finite range relative to infinite great (i.e., it only has finite properties). In brief, we refer to the infinitely small as a finite quantity in the following discussion as shown in Figure 1.*

………… ｜ ｜ ｜ ｜ ｜ ………… （finite extension）

Figure 1 There is not the minimum and maximum quantity in the finite range, and the front (decrease)one and the behind (increase)one of infinitely small can be randomly extended without bounds in the finite range. So infinitely small is define as finite length quantity of one dimension without the sizes of space and time.

In our usual calculus calculation, the extension from the infinitesimal to the infinitely great is defined as being infinitely close but not reachable, and the lessening from infinitely great to infinitesimal is also defined as being infinitely close and not reachable. From the definition of axiom 3 above, we know that this concept needs to be corrected. That is, if the superpositions of infinitesimal are gradually close to a certain quantity, then they can reach that quantity, and if the superpositions of infinitesimal cannot reach a certain quantity, then they are not close to that quantity.

Definition 2.3. *If the sequential (or continuous) superpositions of finite quantities only stay in the finite range (namely, an incrementally increasing value can only stay in a finite range and does not reach infinity), then how can the superpositions of infinitely many quantities be achieved? I find that superposing by the change in direction can indicate the accumulations of the infinitely many as shown in Figure 2. The infinitely great is reached by the superpositions or accumulations of infinitely many finite quantities by the change in direction. The change in direction is equal* *to the definition of the infinitely great that we can't talk about anything outside of it and can compresses any quantities outside of it to nothing, and can not be reached by extending forever of finite quantities.*

Corollary 2.1. *The new definition of the infinitely great is summarized in the following outline.*

(1) *The definition of infinity as boundless (i.e. a boundary cannot be found) is a vague concept. Instead,infinity should be defined as a concept that we can't talk about anything outside of it,and it can compress any quantities outside of it to nothing.*
(2) *Infinity cannot be reached by extending finite quantities forever. (The infinite definite value of all numbers will be given by this exact definition of infinity, where all values end up at this value).*
(3) *Infinity is reached by the superposition or accumulation of infinitely many finite quantities with a change in direction.*
(4) *Since continuous superpositions of finite quantities only stay in the finite range, achieving the superpositions (or accumulations) of infinitely many finite quantities will be a jump from finity to infinity and not be continuous superpositions.*

It should be emphasized that infinite quantities are accumulations of infinitely many finite quantities. In the process of a known finite quantity accumulation (add), if the accumulation is close to a certain quantity, then we say that it can reach this quantity, or it can reach this quantity by accumulating forever, and we define the quantity as finite. If the accumulation is not close to a certain quantity, then we say that it cannot reach this quantity by accumulating it forever, and we define this quantity as infinite. From the above three points of definition of infinity, we can see that infinite quantities are accumulations of infinitely many finite quantities.

Corollary 2.2. *To make it easier to understand, the above four concepts of axiom 3 are compared with axiom 1.*

(1) *In axiom 1, the extension from 0 to infinitely great will go on forever and can never be stopped, which is equivalent to the concept of having no boundaries of the universe. Instead, in axiom 3, the infinitely great can never be*

reached by extending finite quantities forever, the infinitely great is an open quantity that cannot be talked about anything outside of it, and can compress any quantities outside of it to nothing.

(2) *A maximum quantity (infinitely great) is nonexistent, and for any a given length quantity, there is already a larger quantity than it according to Axiom 1. Instead, a maximum quantity (infinitely great) exists, . and it is the open quantity that we can't talk about anything outside of it and it compresses any quantities outside of it to nothing.*

(3) *The concept that any given line segment, plane, multidimensional surface, etc. can be divided finitely or infinitely into smaller parts in Axiom 1 and is replaced by the concept of the change in direction representing infinitely many accumulations of finite quantities in axiom 3.*

(4) *The superpositions for extending from the infinitely small to the infinitely great are the process of continuous superpositions in axiom 1. However, the continuous superpositions in axiom 1 will turn into superpositions that must stay only in the finite range and are not capable of eliminating the status of finite quantities in axiom 3 due to the concept that the infinitely great can never be reached by extending finite quantities forever. Thus, achieving the accumulation of infinitely many finite quantities must require a jump from finity to infinity in axiom 3.*

(5) *The definition of infinity is not something we can't find an boundary, but something we can not talk about any quantities outside it and can be defined as the open quantity that can compress anything outside it into nothing,and something we can not reach it by extending forever of finite quantities. Thus, we say that if the superpositions of the infinitesimal constantly extend to close to a certain quantity, the quantity is considered finite , and if the infinitesimal does not constantly extend close to a certain quantity, the quantity is considered infinite., Therefore, infinity is the accumulation of infinitely many finite quantities and is precisely defined as something that goes on forever and never reaches it.*

3. Main results

Furthermore, detailed characteristics of the infinitely great are given below.

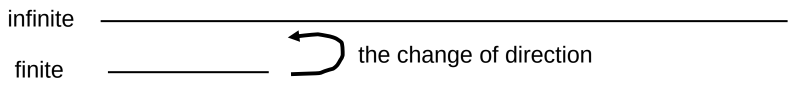

Figure 2 The infinitely great is reached by the superpositions or accumulations of infinitely many of the finite quantity by the way of the change of direction.

Characteristic 3.1. *Since the change in direction suggests the accumulation of most quantities (infinitely many or infinitely great), so the infinitely great can be defined as the open quantities that can compress anything outside it into nothing and can not be talked about any quantities outside it ,Containing the whole quantities can be indicated by infinitely many,which means that all quantities can be included by one system where it distincts from axiom1.*

Characteristic 3.2. *The infinitely great can be described from characteristic 1 as a point that is unlimited, open, and opposite the L point (limited or finite) as shown in Figure 3. From this property of the infinitely great, we understand the cosmos as an open space.The meaning of a word 'open' is unlimited(extending unrestrictedly), which is synonymous with unlimited (unrestricted).*

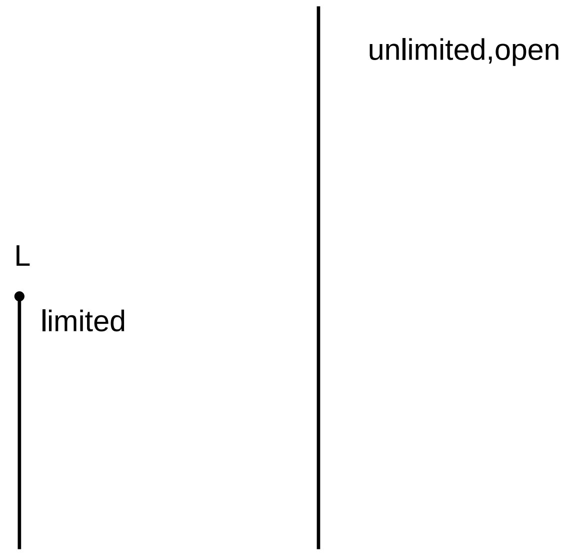

Figure 3 The infinitely great can be described from character1 as point that is unlimited,open,opposite to L point.

Characteristic 3.3. *Considering finite quantities whose sequential superpositions can only remain within a finite range, this finite quantity is not distinguishable from its sequential superpositions (increase or decrease) in size. Therefore, there are finite length quantities without the sizes of space compared,, and infinitely many of these quantities can accumulate to compose the infinitely great. Thus, the accumulation of infinitely many quantities implied by the change in direction indicates a jump from a finite quantity to infinitely many finite quantities. Assigning this finite quantity as 1, we have the following relationship:* $\infty/1=\infty$*, where* ∞ *suggests the infinitely great. The reason for saying jump is that the distance relationship between 1 and* ∞ *is jump. Figure 4 describes the relationship between a finite quantity and infinite quantities.*

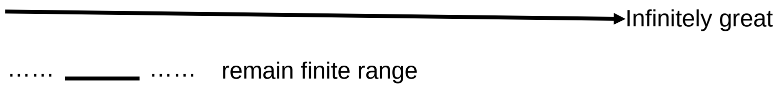

Figure 4 The accumulations of infinitely many implied by the change of direction indicates an jump from a finite quantity to finite quantities 'of infinitely many.

Characteristic 3.4. *Figure 4 shows that the change in direction indicates that only two quantities exist: finite quantities and infinite quantities. Thus, it is said that a quantity that does not reach infinite quantities and only remains within finite location is a finite quantity. When this finite quantity jumps to infinitely large quantities as the direction changes, the nearest infinite quantity to finite quantity is starting point I, as shown in Figure 5. Point I is identical to end point E due to the change in direction, which is different from axiom 1 in which sequential (or continual) superpositions can obtain random length quantities.*

Figure 5 When this finite quantity leap into infinitely great quantity by the change of direction, the nearest infinite quantity to finite quantity is the starting point I in figure 5. The point I is identical to end point E due to propery of the change of direction ,which is different from axiom1 in which the sequential (or called continual)superpositions can get random length quantities.

Characteristic 3.5. *It is known from Figure 2 that the change in direction indicates that the second quantity of the infinitely great can only be given on the basis of*

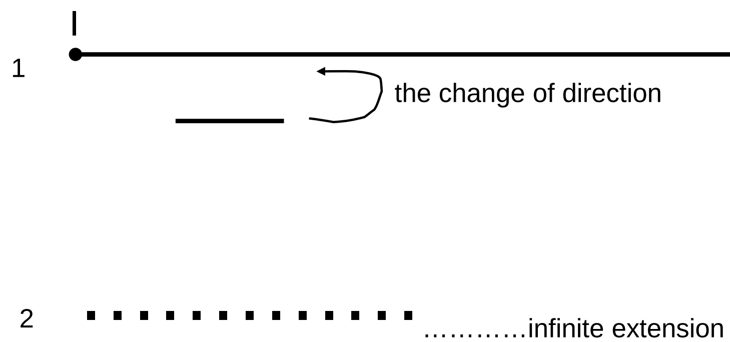

Figure 6. Figure 6 shows that the first quantity and the second quantity extend in parallel and do not intersect at infinite distances (infinitely many). Although the second quantity is meaningless, the property of infinitely great sizes has been defined here. As a result, I conclude that infinitely many quantities suggested by the change in direction exist in one quantitative way (i.e., there is only one quantity). The continuum is indicated by one quantity that cannot be divided into smaller parts and extended to more larger distance. Therefore, the accumulation of infinitely many quantities (infinitely great) is manifested by the continuum. Therefore, the noncontinuum consisting of finity or infinity 0 points is nonexistent. Furthermore, in the universe, as we see, no infinitesimal exists, and only one quantitative continuum representing the infinitely great exists. For instance, A finite-length quantities pulled out of this one quantitative continuum are meaningless.

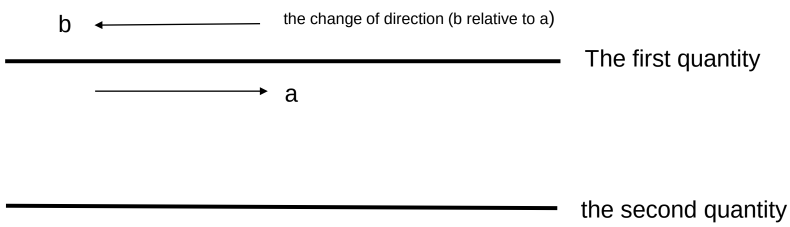

Figure 6 The accurate definition of the change of direction. The change of direction is defined as the second quantity that extend parallelly and doesn't intersect at infinite distance (infinitely many) with the first quantity in order to find this change of direction. This definition is aslo suitable for extension parallelly of two infinite quantities of infinite dimensions.

Therefore, the essence of the continuum is one quantity; that is, one quantity determines the continuity of the space we see. Therefore, we refer to the spatial characteristics determined by the change in direction as one quantitative continuum.

In modern mathematics, the continuum is endowed with two meanings: 1. There is no minimum quantity; that is, for any given minimum quantity, there is always a smaller quantity (if a minimum quantity singularity is allowed to exist, the continuum will become a noncontinuum). 2.This continuum can be divided into parts of comparable size. For example, line AB, as shown in Figure 7, has points A and B that can be referred to as breakpoints. However, in axiom 3, breakpoints such as AB do not exist. A continuum is one quantity whose two ends extend to an infinite distance and cannot be divided into smaller parts.

Figure 7 A and B can be called breakpoints, However, in Axiom 3, breakpoints such as AB do not exist. A continuum is one quantity whose two ends extend to infinite distance and cannot be divided into smaller parts.

Characteristic 3.6. *Here, I emphasize that it is not one quantitative continuum but the change in direction that indicates accumulations of infinitely many quantities. One quantitative continuum is the manifestation of the change in direction. Two features are included in this quantitative continuum. First, the continuum exists as a unity where its any parts is itself and its any parts cannot be segmented into fewer parts or larger parts. As a specific example, the circumference of a circle cannot be selected as parts that are different from the other parts. Second, the change in direction indicates the infinitely great, which means that any parts of this continuum are infinitely great.*

Characteristic 3.7. *Where is the switching point from finite quantities to infinite quantities if both coexist within a system as the same axiom 1? The rationality of switching from finite quantities to infinite quantities indicated by the change in direction is validated from the above point of view. The change in direction suggests that finite quantities are not part of infinite quantities as shown in Figure 4. Thus, The space or time that we know on the basis of common sense is this one quantitative continuum representing infinitely many quantities, where finite quantities have no place to exist, and it is only reference quantities that define the infinitely many quantities.*

As a result, it is meaningless to look for 0 point that, suggests the presence of the infinitely small in the common sense because the infinitely great being the only one in existence. Therefore, the definite values of each length or scale of space and time have been given in accordance with characteristics 5 and 7, and all of them are one quantitative continuum representing infinitely many quantities.

Characteristic 3.8. *The fact that there is only one quantity to exist and there is no second quantity to select is indicated by the change in direction representing the accumulation of infinitely many quantities, which means that this one quantitative continuum cannot be carried out by the algorithms of 'include' expressed by () and 'equal divide' expressed by/as axiom 1. In other words, the operations of addition, subtraction, multiplication, and division cannot be established by the quantitative continuum of the change in direction representing infinitely many quantities due to its uniqueness of this one quantitative continuum. Thus, infinitely many quantities indicated by the change in direction, being equivalent to forever superposing a finite quantity that can also not reach infinity, can only be expressed by using the size property described by characteristic 5 and not by using gradually increasing numbers, such as 31415962...... (extending forever) or 45879...... (extending forever). that can be established by the operations of addition, subtraction , multiplication, and division(2). As an example, the infinite value of [?]2, is not the resulting value of 1.414...... (sequentially extending forever and never stopping) but a value of the change in direction, which represents the infinitely great, defined as something never reached by a sequential extension, and implies a jump from finity to infinity. The change in direction also implies that these infinite values are unique (indicating that the operations of addition, subtraction, multiplication, and division cannot be established), and the decimal point have lost its meaning Why? Since the size of two quantities can be compared, which is only meaningful within a limited range, and the addition, subtraction, multiplication and division operation between infinite quantities cannot be carried out (this phenomenon is caused by the jump characteristics caused by obtaining infinite quantities), that is, the size of two infinite quantities cannot be compared, so a decimal point value cannot be extended to infinity. Consequently, the uniqueness of the infinitely great is also the final destination of all infinite integers, infinite repeating and infinite nonrepeating decimals.*

Characteristic 3.9. *It is shown from characteristic 8 that the operations of addition, subtraction, multiplication, and division cannot be established by this quantitative continuum of the change in direction representing infinitely many quantities due to its uniqueness. As a result, a conclusion is drawn that the quantitative values and dimensions are the same; it is at unity where its random parts is this infinitely great quantities. Thus, we call this unity as infinite quantities of infinite dimensions. All quantities that we can find are on this one quantitative continuum. For the same reason, any point, line, plane or any outline of having properties of a gradually increasing dimension drawn in space, such as a circle, is meaningless(3)(4)(5). In this sense, it is also meaningless for us to say that space and time are curved. The concept that space and time are made of countless 0 values is replaced by the concept of one quantitative continuum indicated by the change in direction expressing the accumulation of infinitely many quantities. Furthermore, the infinitesimal is nonexistent, Instead, there is only one quantity that exists and it is a continuum indicated by the accumulation of infinitely many quantities.*

For example, the circumference of a circle cannot be picked out from this unity of infinite quantities of infinite dimensions and is of course the part of one quantitative continuum, which indicates that the accurate value of the circumference of a circle to its diameter(π) is 1 because there is only one quantity that exists. Furthermore, any given circle circumferential length (the parts of space of the one quantitative continuum) consists of infinitely many quantities indicated by the change in direction.

Corollary 3.1. *Now let us see how to use this new definition of infinity to obtain the infinite definite values of some commonly used mathematical quantities, such as π from which we can also find how this new definition is different from our current definition of infinity.*

π is an infinite noncyclic decimal. Therefore, to obtain the definite value of this quantity (3.1415926...), its extension is carried out forever and cannot be stopped. There are two meanings here. First, if this extension is carried out forever, it can reach a certain definite quantity that we refer to a finite quantity. Second, if this extension cannot reach a certain quantity forever, it is referred to as an infinite quantity.

In the first case, if the extension of π is carried out forever and cannot be stopped, this extension is considered a continuous extension and will never reach infinity, meaning it will only stay in finite range, in which the decimal point makes sense only in comparison with finite quantities. The definition of infinity in modern mathematics (our current definition of infinity) is based on this concept. In any case, this definition of infinity is essentially finity.

In the second case, according to the new definition of infinity, its extension cannot be close to infinity, so it must stay in a finite state. Therefore, we can say that infinity is a finite infinity, that is, the unreachable quantity is the infinite quantity of the reached quantity, in which the decimal point makes no sense in comparisons of finite quantities and infinite quantities because transformation from finite quantities to infinite quantities must go through a jump process. Thus, when the infinite value of π is obtained, the meaning of its decimal point has been lost, and the number becomes an infinite integer value, which is also the final destination of all other mathematical quantities because transformation from finite quantities to infinite quantities is indicated by the change in direction, which means that the space we see is one quantitative continuum that cannot be established by the operations of addition, subtraction, multiplication, and division. This change in direction can be referred to as a quantity that can never be reached by extending it forever and can't be talked about anything outside of it: it is therefore an infinite quantity of finity.

Corollary 3.2. *Now let us calculate the exact value of the circumference ratio (π) again. With the continuous extension of π value (3.1415926...), the perimeter and diameter are divided into smaller parts, which are equivalent to the fact that we regard the perimeter and diameter as infinite accumulations divided into infinitesimal quantities. Therefore, here, we return to the most primitive problem in axiom 1 and 3, that is, the most basic concept.*

From definitions 1-3 in axiom 3, it can be seen that since the change in direction implies the infinite accumulation of finite quantities, and the result of the change in direction is a quantitative continuum, the perimeter and diameter are parts of the quantitative continuum, which follows the mathematical characteristics of axiom 3 to define infinity (it cannot be reached by forever extending finite quantities), Therefore, we obtain the exact infinite value of π. This value is 1, and the perimeter and diameter are infinite values, but here they have lost the characteristics of comparable size (that is, the mathematical characteristics of the gradual increase or decrease of the quantity value in axiom 2).

Therefore, like π values, any other quantities (for example, the natural logarithm e, $2^{1/2}$, and so on) described in modern mathematics are parts of this quantitative continuum. Here they have two meanings. First, all quantities have approximate meanings only in the comparison of a finite range. Second, if these values are extended to infinity, they lose their comparable meanings; in other words, infinity has only one quantity, and there is no distinction between these so-called different mathematical quantities.

In this sense, any mathematical formulas are incomplete because they are based on the infinitesimal division of mathematical space and obtained with the infinitesimal as an invariant. However, in axiom 3, the infinitesimal does not exist. There is only one quantity continuum representing infinity. We cannot perform any mathematical operations on this continuum, so infinity exists as a basic unit quantity, and for a finite quantity (although this finite quantity does not truly exist in real space), infinity exists as an absolute variable quantity.

Characteristic 3.10. *From characteristics 1 and 3, any fractions and infinite acyclic decimals that has no integer solution in a finite range in axiom 1 can obtain a definite value of integer solution in an infinite range in a change in direction suggesting infinitely many quantities, such as 4/3, 7/6, $2^{1/2}$, π etc.,including all quantities we can find, their final destination is an infinite integer quantity indicated by change in direction. The concept that any length can be randomly and infinitely divided into fewer parts has been replaced by the change in direction in which the formula is expressed by $\infty()1=\infty$, $\infty()\infty=1$. Here, 1 is a finite length quantity of one dimension without the sizes of space, and ∞ denotes infinitely many quantities that are defined as the concept that the superpositions of 1 to be carried on forever can aslo not reach ∞. All infinite quantities implemented by a change in direction are carried out in the way of $\infty()\infty=1$. Within the infinitely many quantities suggested by the change in direction, there is no difference between an odd number and even number, a prime number and a sum number and also irrational numbers and rational numbers.*

Characteristic 3.11. *In addition, it is emphasized here that one quantitative continuum representing infinitely many quantities means that any operations, such as* *the operations of addition, subtraction, multiplication, or division, cannot be implemented. As axiom 1 mentioned in the first paragraph, assuming quantities beside, behind and in front of this infinitely great being existence (all quantities obtained are after the change in direction), it is only determined by the property of the change in direction that there is no difference between the infinitely great and quantities beside, behind and in front of it. Namely, the infinitely great has been reached by quantities beside, behind and in front of it. The distance between finite quantities and infinite quantities is also the relationship shown in Figure 4.*

Characteristic 3.12. *It is known above that there is only axiom 1 or axiom 3 (either axiom 1 or axiom 3 exists), and there is no third axiom. For example, for any given line segment, it is meaningless to say that it can be divided infinitely because to admit it is to admit the existence of a third axiom.*

Since axiom 1 is illogical, it is meaningless to say that the given line segment consists of a finite number of zeros, and furthermore, since axiom 3 is logical, it is also meaningless to say that it consists of an infinite number of zeros. Consequently, the concept that a given line segment can be divided infinitely into smaller parts is replaced by the concept of the change in direction indicating one quantitative continuum in axiom 3 where any given line segment is the quantitative continuum itself. Of course, this any given line segment is also nonexistent because if we assume that it exists, then the comparison with other quantities relative to it will be given the meaning of being able to compare the size, which obviously comes into the dilemma of acknowledging the third axiom.

Characteristic 3.13. *Some readers may ask how axiom 3 differs from the usual mathematical operations, such as calculus. We now describe space as a mathematical model that can compare the size, boundless, infinitesimal extension that gradually approaches infinity. For example, for a given line segment or high-dimensional surface, we define it as a manifold that can be infinitely and arbitrarily divided into smaller parts. The concept of infinite and arbitrary division is equal to the gradual extension and superpositions from the infinitesimal to the infinite great. Here, a certain line segment or surface is understood as a set of innumerable infinitesimals and can be calculated similar to calculus. From the definition of axiom 3, it can be seen that this is not a fact. Space is a continuum extending to infinity. There is only one quantitative continuum, which cannot be divided or expanded into smaller or larger* *parts, and it cannot be added, subtracted, multiplied or divided. It is also meaningless to divide this quantitative continuum into a given line segment or surface. For example, for π, to obtain its definite value, the approaching extension of the sequential (or continuous) form cannot reach the infinite definite value and can only stay in a finite quantity range. It must experience a jump representing the infinite accumulation of finity by the form of the change in the direction and obtain its infinite definite value. In any case, by then, this value has become one quantitative continuum representing the infinitely many accumulations of finite quantities.*

Characteristic 3.14. *Some readers may also ask why does a decimal of infinite value not exist, such as π, [?] 2, etc. The answer is illustrated below. If the space is able to compare the characteristics of a size, there must be a singularity (0 point) that exists; then, axiom 1, where a given line segment length only has a finite quantity and the decimal point does not make sense. If the space is characterized by the inability to compare magnitudes, then axiom 3 applies, where there is only one quantitative continuum indicated by the change in direction and there are no maximum and minimum quantities. For any given length, all quantities are contained, and there is only the infinitely great (an infinite quantity with integer values). There is no additional axiom to axioms 1 and 3. In contrast, if we admit the existence of infinitely valued decimals, it means that we must admit that space is characterized by being able to compare sizes and that any given length of space will contain all quantities(appled in axiom2), which is untrue. It can be inferred that a decimal with an infinite value does not exist; it merely has an infinite number of integer values.*

Characteristic 3.15. *All mathematical propositions and conjectures are established in the scope of axiom 2; However, axiom 2 does not exist, so these theorems only apply to axiom 3 ,that is, these propositions are only established in a finite scope in axiom 3, such as Fermat's theorem, Riemann conjecture, Goldbach conjecture, etc., and their proofs are valid in a finite scope and cannot be naturally extended to an infinite scope. In any case, according to the definition of infinity in axiom 3, all these propositions are no longer applicable in an infinite range. In other words, the proof of each conjecture only applies to a limited range, not to infinite values.*

Characteristic 3.16. *Regardless of how modern mathematics develops, it is impossible to calculate exact values (infinite values) with existing calculus because calculus* *calculations are approximate. More importantly, its calculation is based on infinitely dividing the length or high-dimensional curve manifold to be calculated into infinitesimal parts, which cannot be realized in axiom 3. Because axiom 3 implies that the infinitesimal part does not exist, the space we see is one quantitative continuum after the change of the direction representing the accumulation of infinitely finite quantities, and this one quantitative continuum cannot be divided into smaller or larger parts. Therefore, any length or high-dimensional manifold we see in daily life does not have practical significance. In other words, they are all one quantitative continuum, so we obtain their infinite exact values in axiom 3.*

4. Prospects

The infinite definite value of all quantities in space has been given in this paper. This is a final theorem, covering all quantities in space. To briefly and conveniently define the concept of the infinitely great indicated by the change in direction, the model of one dimension is adopted as shown in Figures 1-6. Some readers may ask, what position the infinite dimensions are within infinitely many quantities indicated by the change in direction. Namely, how to understand and define accurately it. For instance, what is the relationship between the beginning and end of time? In the next paper, I will focus on illustrating the meaning of dimensions in infinitely many quantities resulting from the change in direction.

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