

# The Three Theorems of the Universe

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**Abstract:** *This paper proposes new cosmology and gives three theorems of the universe. Theorem 1. The Great Universe Theorem. The great universe C is the union of two non-empty subsets of the earth-view universe E and the sky-view universe H. Theorem 2. Theorem of Heaven, Earth and Man. The whole humanity set {P} is the intersection of the two non-empty subsets of the earth-view universe E and the sky-view universe H. Theorem 3. Theorem of the sky-view universe. Compared with the earth-view universe E, there are four kinds of power in the sky-view universe H, namely: the power of transcendence, the power of distinguishment, the power of agape love, and the power of innovation. This paper further studies the properties of the great universe C and points out that these studies will lead to the birth of many new interdisciplinary sciences and promote a new scientific revolution.*

**Keywords:** The great universe, the universe of heaven, Earth and Man, the sky-view universe, scientific revolution.

## 1. INTRODUCTION

What is the universe? The totality of all things composed of all time and space, all material energy, and all humanity is called the great universe. The great universe, also known as nature, is the universe of heaven, earth and man.

People's "earthly view of the universe" is a small universe. The "Earth-view universe" consists of three parts: four-dimensional time-space (one-dimensional time, three-dimensional space), normal matter and energy, and human perception/cognition of the five senses (eyes, ears, nose, tongue, and skin). It is a subset of the great universe. It has characteristics of "earth-view" and "human-view".

The great universe also includes the "sky-view universe". The "Sky-view Universe" is composed of three parts: super-four-dimensional space-time, dark matter and dark energy, and super-five sense perception and cognition. It is also a subset of the great universe, with the characteristics of "celestial-view" and "human-view".

## 2. DEFINITION AND THEOREM[1][2]

### 2.1 Definition 1

Great universe C is a collection of three elements: all of time and space TS, all of matter and energy (normal and dark) M, and all of humanity P, namely:

Great universe  $C = \{\text{all of time-space TS, all of matter and energy M (normal and dark), all of humanity P}\}$

$C = \{TS, M, P\}$

### 2.2 Definition 2

The earth-view universe E is a collection of three elements consisting of four-dimensional space-time (one-dimensional time  $T_1$ , three-dimensional space  $S_3$ )  $T_1S_3$ , normal matter and energy  $M_L$ , and all humanity P, namely:

earth-view universe  $E = \{\text{four-dimensional space-time } T_1S_3, \text{ normal matter and normal energy } M_L, \text{ all of humanity } P\}$

$E = \{T_1S_3, M_L, P\}$

### 2.3 Definition 3

Sky-view universe H, is a collection of three elements composed of super four-dimensional space-time  $TS > 4$ , dark matter and dark energy  $M_D$ , and all humanity P, namely:

Sky-view universe  $H = \{\text{super four-dimensional space-time } TS > 4, \text{ dark matter dark energy } M_D, \text{ all of humanity } P\}$ ,  
 $H = \{TS > 4, M_D, P\}$

#### 2.4 Definition 4

In the universe, the set of all time and space  $\{TS\}$ , includes four-dimensional space-time  $T_1S_3$  and super four-dimensional space-time  $TS > 4$ , namely:

$$\{TS\} = \{T_1S_3, TS > 4\}$$

#### 2.5 Definition 5

In the universe, the set of all matter energy  $\{M\}$ , includes normal matter and energy  $M_L$ , and dark matter dark energy  $M_D$ , namely:

$$\{M\} = \{M_L, M_D\}$$

#### 2.6 Theorem 1: Great universe theorem

The great universe  $C$  is the union of the two non-empty subsets of the earth-view universe  $E$  and the sky-view universe  $H$ , namely:

$$C = E \cup H, E \neq \emptyset, H \neq \emptyset$$

proof:

According to definition 2 and definition 3, there are:

$$E = \{T_1S_3, M_L, P\}$$

$$H = \{TS > 4, M_D, P\}$$

When  $E \neq \emptyset, H \neq \emptyset$ , there are:

$$E \cup H = \{x | x \in E \vee x \in H\} = \{T_1S_3, M_L, P, TS > 4, M_D\}$$

According to definition 4 and definition 5, there are:

$$\{TS\} = \{T_1S_3, TS > 4\},$$

$$\{M\} = \{M_L, M_D\}$$

$$\therefore E \cup H = \{TS, M, P\}$$

According to Definition 1, there are:

$$C = \{TS, M, P\}$$

$$\therefore C = E \cup H, E \neq \emptyset, H \neq \emptyset$$

Proof completed.

Explanation: The great universe  $C$  is composed of the earth-view universe  $E$  and the sky-view universe  $H$ . Earth-view universe  $E$  is just a small universe, and it is a proper subset of the large universe  $C$ . It can be considered that the earth-view universe  $E$  is "earth" and humanity.

Sky-view universe H, which is composed of super-four-dimensional space-time, dark matter, dark energy, and all humanity, is also a proper subset of the great universe C. It can be considered that the sky-view universe is "heaven" and humanity.

The great universe C is the unity of heaven, earth and humanity.

### 2.7 Theorem 2: Theorem of Heaven, Earth and Man

The whole humanity set {P} is the intersection of the two non-empty subsets of the earth-view universe E and the sky-view universe H, namely:

$$\{P\}=E\cap H,$$

proof:

According to definition 2 there are:

$$E=\{T_1S_3, M_L, P\}$$

According to definition 3 there are:

$$H=\{TS>4, M_D, P\}$$

When  $E\neq\emptyset$ ,  $H\neq\emptyset$ , there is

$$E\cap H=\{x|x\in E\wedge x\in H\}=\{P\}$$

$$\therefore \{p\}=E\cap H, E\neq\emptyset, H\neq\emptyset$$

Proof completed.

Explanation: The whole humanity set {P} is the subset of the earth-view universe E, and it is also the subset of the sky-view universe H. All humanity is not only living in the earth-viewing universe E, but also living in the sky-viewing universe H concurrently.

### 2.8 Theorem 3 : Theorem of the sky-view universe

Compared with the earth-view universe E, there are four kinds of powers  $X_i$  in the sky-view universe H, namely,  
 $\exists xH(x)=\sum_{i=1}^4 H(X_i)$

$X_1$ =transcendence,  $X_2$ =distinguishment,  $X_3$ =agape love,  $X_4$ =innovation.

proof:

(1)  $\therefore H\supset\{TS>4\}$ , H contains super four-dimensional space-time,

$\therefore$  In H, there is transcendence  $X_1$

(2)  $\therefore H\supset\{TS>4, M_D\}$ , H contains super-four-dimensional space-time, and also contains dark matter and dark energy, while high-dimensional space-time can distinguish everything in low-dimensional space-time, and the dark environment can distinguish everything in the light environment.

$\therefore$  In H, there is distinguishment  $X_2$

(3)  $\therefore H=\{TS>4, M_D, P\}$ , in the sky-view universe H, the humanity can acquire new matter energy and have a new time-space environment. The agape love in humanity creates new life and everything.

∴ In H, there is great love X<sub>3</sub>

(4) ∴ Everything in H changes dynamically. Compared to E, H can have "high-dimensional solution to low-dimensional problems", can make "nothing into existence", can break through the limitations of time and space, and has innovative power.

∴ In H, there is innovation X<sub>4</sub>

Conclusion:  $\exists xH(x) = \sum_{i=1}^4 H(X_i)$

X<sub>1</sub>=transcendence, X<sub>2</sub>=distinguishment, X<sub>3</sub>=agape love, X<sub>4</sub>=innovation.

Proof completed.

Explanation: In the sky-view universe H, relative to the earth-view universe E, there are four kinds of powers:

Transcendence X<sub>1</sub>: transcend self, transcend time and space.

Distinguishment X<sub>2</sub>: Distinguish between good and evil, distinguish between falsehood and truth.

Agape Love X<sub>3</sub>: Love heaven and earth, loving others as yourself.

Innovation X<sub>4</sub>: Innovate new life, innovate everything.

### 3. VENN DIAGRAM

Venn diagrams can be used to represent sets and subsets, relationships, and operations between subsets.

We first use the Venn diagram to represent the three theorems of the universe.

#### 3.1 The Great Universe Theorem

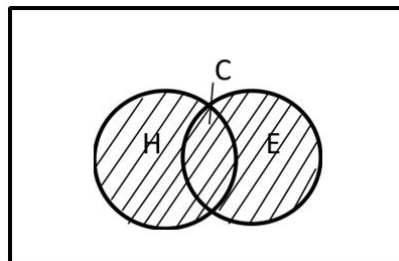


Figure 1: The Great Universe Theorem

$$C = E \cup H, E \neq \emptyset, H \neq \emptyset$$

The great universe C is the union of the two non-empty subsets of the earth-view universe E and the sky-view universe H.

#### 3.2 The Theorem of Heaven, Earth and Man

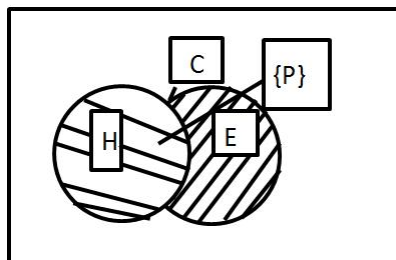


Figure 2: Theorem of Heaven, Earth and Man

$$\{P\}=E \cap H, E \neq \emptyset, H \neq \emptyset$$

The whole humanity set  $\{P\}$  is the intersection of the two non-empty subsets of the earth-view universe  $E$  and the sky-view universe  $H$ .

### 3.3 Theorem of the sky-view universe

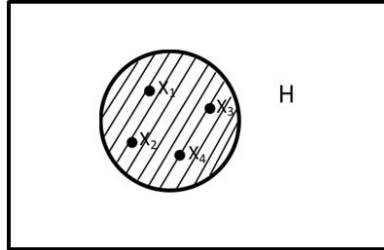


Figure 3: Theorem of the sky-view universe

$$\exists x H(x) = \sum_{i=1}^4 H(X_i)$$

Compared with the earth-view universe  $E$ , there are four kinds of powers  $X_i$  in the sky-view universe  $H$ ; namely

$X_1$ =transcendence,  $X_2$ =distinguishment,  $X_3$ =agape love,  $X_4$ =innovation.

There can be two other Venn diagrams

### 3.4 Definition 6: The difference set of H-E

Then, the collected information is uploaded to the PC; at the same time, processing software running on PC processes the acquired information and calls the target tracking algorithm to obtain the coordinate position of moving target. Moreover, the trajectory of moving target is real-time rendered to the display interface for monitoring the working state of each sensor node. The overall structure of the system is designed as shown in Figure 4.

$H$  and  $E$  are two sets, the set consisting of all elements that belong to  $H$  but not  $E$ , denoted as  $H-E$ , that is

$$H-E = \{x | x \in H \wedge x \notin E\}$$

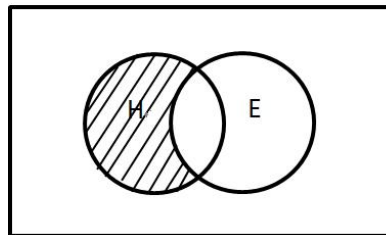


Figure 4: H-E

$$\text{Universe } E = \emptyset, \{P\} = \emptyset$$

It is a universe without humanity, without normal matter and energy.

### 3.5 Definition 7: Boolean sum set H+E of H and E

$H$  and  $E$  are two sets,  $(H-E) \cup (E-H)$  is called the Boolean sum set of  $H$  and  $E$ , denoted as  $H+E$ , that is

$$H+E = (H-E) \cup (E-H)$$

$$= \{x | (x \in H \wedge x \notin E) \vee (x \in E \wedge x \notin H)\}$$

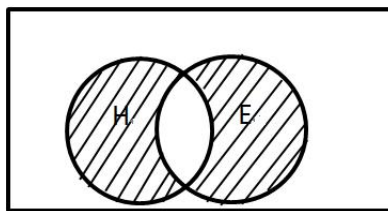


Figure 5: H+E

$$H+E=(H-E) \cup (E-H)$$

$$\text{Universe of } \{P\} = \emptyset$$

This is the universe without humanity

#### 4. THE CHARACTERISTICS OF THE GREAT UNIVERSE[3][4][5][6]

According to the great universe theorem, the great universe C is composed of the earth-view universe E and the sky-view universe H.

Earth-viewing universe E is composed of four-dimensional space-time, normal matter, normal energy, and humanity. It belongs to "earth" and humanity. Sky-view Universe H is composed of super four-dimensional space-time, dark matter, dark energy and humanity, and belongs to "heaven" and humanity.

The earth-view universe E can have the following six characteristics:

- 1) Four-dimensional space-time (one-dimensional time, three-dimensional space).
- 2) Normal matter and energy.
- 3) Human five senses (eyes, ears, nose, tongue, skin) perception.
- 4) Humans are intelligent and have the ability to make use of knowledge to solve problems.
- 5) The separation of mind and matter. Scientific research focus on "the objective law of the movement of matter independent of human will".
- 6) The separation of heaven, earth and man. The research of natural sciences, social sciences, and religious studies is separated.

According to the research of modern science, the research of dark matter and dark energy, the research of parapsychology, the research of philosophy, theology and mathematics, and especially the research of multi-dimensional space-time, we can explore the characteristics of the sky-view universe H:

- 1) Super-four-dimensional space-time.
- 2) Dark matter and dark energy.
- 3) Super-five sense perception.
- 4) People have enlightenment and the ability to use beliefs to solve problems.
- 5) The unity of mind and matter. Scientific research on "how people's beliefs affect the orderly laws of the motion of matter".
- 6) The unity of heaven, earth and man. Natural sciences, social sciences, philosophy, religious studies, mathematics and literature are studied as one.

The properties of the great universe are as follows:

The great universe characteristics table			
	Earth-view Universe E $E=\{T_1S_3,M_L,P\}$	Sky-view Universe H $H=\{TS>4,M_D,P\}$	The great universe C $C=\{TS,M,P\}$
1. Time/space	Four-dimensional space-time $T_1S_3$	Super-four-dimensional space-time $TS>4$	Total time-space $\{TS\}=\{T_1S_3,TS>4\}$
2. Matter/energy	Normal matter and energy	Dark matter Dark energy	Total matter and energy
3. Human perception	five sense perception (eyes, ears, nose, tongue, skin)	Super-five sense perception	Total perception
4. Human wisdom	Intelligence (use knowledge to solve problems)	Enlightenment (using beliefs to solve problems)	Wisdom (integrate of intelligent and enlightenment )
5. Relationship between mind and matter	Separation of mind and matter. (Research on "the objective law of the movement of matter independent of human will")	Unity of mind and matter. (Research on "how people's beliefs affect the orderly laws of the motion of matter")	Both relationships are included in the great universe
6. Relationship between heaven, earth and man	The separation of heaven, earth and man. (The research of natural sciences, social sciences, and religious studies is separated)	The unity of heaven, earth and man. (Natural sciences, social sciences, philosophy, religious studies, mathematics and literature are studied in one)	Both relationships are included in the great universe
7. Theorem	Theorem of Heaven, Earth and Man $\{P\}=E\cap H$	Theorem of sky-view universe $\exists xH(x)=\sum_{i=1}^4 H(X_i)$	Theorem of great universe $C=E\cup H$

## 5. FURTHER RESEARCH DIRECTIONS[7][8]

Further research on the great universe will surely lead to the birth of many new interdisciplinary subjects, including:

### 5.1 Multidimensional spatiotemporal science

Contemporary superstring theory holds that the universe has one-dimensional time and ten-dimensional space. The seven-dimensional space-time theory believes that the universe has two-dimensional time and five-dimensional space.

Is there a "Triple Heaven" in the universe? Does there exist a "body outside of body, heaven outside of heaven"?

### 5.2 Dark Matter and Dark Energetics

According to the data given by the Planck satellite in 2013, the proportion of various matter and energy in the universe is:

Normal Matter and Energy 4.9%

Dark Matter 26.8%

Dark Energy 68.37%

Is this ratio correct? What are the laws of dark matter and dark energy?

### **5.3 Superpowers of human (parapsychology)**

Internationally, the research on paranormal functions is called parapsychological research. Currently, there is the International Parapsychological Society, and there are more than ten universities in the world have masters or doctoral courses pertaining to parapsychology.

A large number of facts around the world show that the super powers of the human body are real, not fake nor magic., not "unimaginable".

Supernatural powers are comprised of the functions of the human body in the great universe, the functions in the "sky-view universe", the wisdom energy of people, and the faith function of people. The human belief system is an open and self-organized cooperative work system. When belief changes from disorder to order, mutations will occur and special functions will be produced. This is similar to ordinary light variable lasers.

### **5.4 Faith science**

Scientific research should not only study the objective laws of material movement, but also study how human beliefs affect the objective world. We should research such called faith science.

In quantum science, the state of quantum is related to human observation and belief.

In the life sciences, beliefs can rewrite genes, change the length of telomeres, and impact the length of a human lifespan. Beliefs have a placebo effect and an immune-boosting effect.

The three principles of the belief system are: the principle of "unity of mind and object", the principle of "system coordination" and the principle of "faith accomplishment."

### **5.5 Wisdom Science**

In the earth-view universe, humans have intelligence, including artificial intelligence. They use knowledge to understand and solve problems.

In the sky-view universe, humans have wisdom power, and they use their understanding of known information, belief in unknown hypothesized information, and spiritual belief of super-four-dimensional space and time. That is, people use belief systems to understand and solve problems.

Wisdom in the great universe is the integration of intelligence and wisdom power. The Three Laws of Wisdom are: The Law of Intelligent, the Law of Wisdom Power, and the Law of True Wisdom.

Great Wisdom: transcends self and time-space, distinguishes between good and evil, and distinguishes falsehood and truth. Trust in love enables all things, trust in mighty power accomplishes all things

Agape love: love of heaven and earth, love of others, and loving others as yourself.

Mighty Power: The right place, the right time and right people, joy and gratitude.

### **5.6 New life sciences**

New life sciences include quantum brain science, brain-like intelligence, consciousness science, subconscious science. They also include unified medicine, integrated traditional Chinese and Western medicine, and the integration of mind and matter.



### 5.7 Philosophy

Philosophy involves the theory of the unity of mind and matter, the theory of the unity of heaven, earth and man, dialectics.

### 5.8 Math

Math involves the wisdom mathematics, guessing mathematics, Chinese medicine mathematics, dynamic fuzzy mathematics.

The birth and research of new interdisciplinary sciences will inevitably lead to a new scientific revolution.

This will result in harmony within the universe and harmony between man and nature.

Unity

The Word created heaven earth and man

Man has body heart and spirit

A tree unites heaven and man

Spirit fruits fulfill the Garden.

## ACKNOWLEDGMENTS

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