Basic Mathematical form Of Nature of Space And Dimension of Observable Universe and Beyond

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ABSTRACT

In this innovative research I have advanced the theory of space with definition of space, definition of types of space, and introduced energy-mass transformation, gravity and gravitation force. With this advance research, finally I have defined basic mathematical form of "Nature of space and Dimension of Observable Universe and beyond".As we know the universe is defined as all space-time and their contents. However, several questions still remain open regarding higher dimension, singularity, gravity collapse at horizon of black hole, unified gravity, theory of everything, dark matter, dark energy, existence of observable universe and beyond, question for mathematical form of everything, question for matter itself, and question for the space itself. These open questions have driven this scientific research of "Basic Mathematical form Of Nature of Space and Dimension of Observable Universe and beyond". My research findings indicate that the space itself is the entity with having physical properties. The space can be described by physical structure and its transformation. The space has two fundamental properties of energy and mass, and space can be described by energy-mass transformation. From these energy-mass transformation and physical structure transformation, I have defined the gravity, gravitation force and basicmathematical form of "Nature of space and Dimension of Observable Universe and beyond". This basic mathematical form covers scope of higher dimension, unified gravity, singularity, horizon of black hole, and nature of space of observable universe and beyond. Several research have been conductedfor look into nature of space,space-time, gravity, unified gravity, higher dimensions, unified mathematical formof everything by Minkowski space,Higgs field, Aether medium, Newton's law of universal gravitation, Electromagnetism,Planck constant,General relativity,Standard Model,Loop Quantum Gravity, Super symmetry, Super gravity, String theory and M-Theory. Despite these research, the questions still remain open for unified nature and for unified mathematical form of "Nature of space and Dimension of Observable Universe and beyond". By researching the existence of matter, I found the existence of space was just accepted as the void, empty, and space-time background framework. My research reflects "Dimension of Observable Universe and beyond"encompasses all existence of observable universe and beyond it. The advance

definition of space, definition of type of space, space transformation and energy-mass transformation perfectly describe existence of entire space & universe and its nature at very fundamental level. This very fundamental nature is presented in basic mathematical form. It is the most accurate foundation to answer those open questions. It is the novelty in astrophysics and foundation of entire existence.

1   INTRODUCTION

Resulting my first research titled "Nature of Space and Dimension of Observable Universe and beyond"[1]. I got more questions, to define mathematical form of "Nature of Space and Dimension of Observable Universe and beyond". In continuation, this research is mostly progresses around to answer below few questions.

1.   What is the space itself? What is the matter itself? Where do all come from and how do all created?
2.   What is the Higher Dimension?What is the Extra Dimension?
3.   What is the energy? What is the mass? What is the energy-mass relationship?
4.   What is the gravity?
5.   What is the combine true nature of entire existence? Or true nature of everything?
6.   What is the mathematical form, for combine true nature of entire existence? Or for true nature of everything?

These questions must be answered to know, true nature of entire existence and true foundation of entire existence. There are several researches have been done which include Minkowski space[2],Newton's Law of Universal Gravitation[3],Electromagnetism[4],Planck constant[5],General relativity [6][7],Standard Model[8], Loop Quantum Gravity [9], String theory [8][9][10][11], Higgs field[12], Aether medium[13], the questions are still open for higher dimension [2], unified gravity[8], dark matter [14][15], dark energy [16][17], theory of everything[11] and space beyond the universe.

During year 2018-2022, myfirst research"-Nature of Space and Dimension of Observable Universe and beyond"[1]resulted, the pure space definition, types of space, space transformation, and space-matter transformation. And these together answer about space, space-time, and fundamental nature of entire existence and beyond.

It waschallenging for me to describe through end to end nature for the entire existence of space, space-time and beyond, to establish universal and beyond scientific nature, to establish universal and beyond scientific relationship (Which includes singularity[18], gravity at singularity[18] and beyond), and to unite classical part of the universe and quantum part of the universeand beyond into one. By the early year 2022, with the definition of "Dimension of Observable Universe and beyond" this unification of classical part of the universe and quantum part of the universe and beyond the universe have been solved.

After defining "Dimension of Observable Universe and beyond",Next during Year 2022-2024, I continued research to advance, the theory of space, definition of space, definition of type of space,definition of "Dimension of Observable Universe and beyond", space transformation, and space-matter transformation. With this advancement I introduced energy-mass transformation, gravity and gravitation force. Finally I have defined basic mathematical form of "Nature of space and Dimension of Observable Universe and beyond". My research answers to questions.

1.   space and matter

My research defines the space itself as the entity, describes true nature of space and matter, describes existence of matter, and true nature of entire existence. With the advance definition of space, it simplifies the various concept of space like vacuum, void, empty, spin network, one dimensional vibrating strings and filled with medium, by uniting them all to one fundamental space. With the advance,definition of space, methods and laws, it simplifies the various theory for type of space, and shape of space like isotropic [2], homogeneous [2], and various geometry concepts for shapes of the space by uniting all to one unique

space standard.My research defines and presents space and matter at very fundamental level.

2. Higher dimension, Extra dimension

This entire existence and its nature is encompassed by "Dimension of Observable Universe and beyond". Thesimplified dimensions and methods unites classical mechanics [19] and quantum mechanics [20]and beyond into one. With this advance "End to End dimension", it simplifies the various dimensions like extra dimension [2], higher dimension [2] by uniting all to one standard dimension.

3. Energy, Mass, and Energy-Mass relationship

The existing definitions and nature, of energy and mass are limited to photon and speed of light "c = 299 792 458 m / s". And limited to **"E=mc2"** accordingly. My research subject is much deeper than standard model, It is deeper and beyond the photon and speed of light "c = 299 792 458 m / s". It is the beyond the standard model, beyond the general relativity, beyond the loop quantum gravity, and beyond the string theory in term of fundamental existence and fundamental nature. In this research I defines space, matter, and types of space, space transformation, and space-matter transformation. These very fundamental existence and fundamental true nature are not possible to define and describe without energy and mass. It may require extended research of energy and mass. And extended research of energy-mass relationship.[21] So, in this research I have defined space, matter, space transformation, space-matter transformation, energy-mass transformation with very fundamental energy and mass. These very fundamental energy and mass described here are in simple symbolic naming forms to formulate simple math forms of very fundamental existence and nature. And math forms of energy and mass are used to formulate mathematical formof, entire existence & nature of everything.

4. Gravity

The existing definition of gravity is limited to motions of large bodies and quantum bodies. The gravity for the large bodies is very well explained. But gravity for quantum bodies is still question for research. And the research are still going on to unite classical gravity and quantum gravity. But here in my research the existence is presented beyond the large bodies and beyond the quantum bodies. So, I have defined gravity and gravitation force for the "dimension of observable universe and beyond".

5. True nature of entire existence Or true nature of everything

It explains space existence and matter existence at very fundamental level, and establishes true nature in between matter part of the observable universe and space of the observable universe, and establishes relationship for existence beyond the observable universe.

6. Mathematical form for, combine true nature of entire existence Or true nature of everything

The mathematical form presented here is in its very basic form. It describes existence at classical level, at quantum level and beyond. It describes nature of existence at classical level, at quantum level and beyond. So, it is the basic mathematical formof "Nature of Space of Observable Universe and beyond". My research findings explain true nature of entire universe and beyond. The existing scientific information do not truly mention about definition of the space and nature of the space, existence of matter, space and matter relationship, dimension of the entire space, dimension of the universe, and existence of the universe, and from where and how the entire existence emerge at fundamental level? In this research findings, the advance definition of space, advance definition of type of space, advancemodel of "Dimension of Observable Universe and beyond",advance spacetransformation method,advance space-matter transformation method,and energy-mass transformation perfectly describe existence of entire space & universe and its nature at very fundamental level. And this very fundamental nature is presented in basic mathematical form. It is the most accurate foundation to answer those open questions. It is the novelty in astrophysics and foundation of entire existence.

2 Literature Review

Here, I organize literature review in sections such as, matching list of literature, review of each literature for research questions and subject, importanceof the research questions and review of all literature for each research question, and conclusion of literature review.

2.1 Matching list of literature

Below is the overview of some existing highly valued researches which match to my research subject up to certain extent.

Newton's Law of Universal Gravitation:
It says that every object attracts every other object in the universe with a force that is proportional to the product of their masses and inversely proportional to the square of the distance between their centers.
Newton defined, the mathematical form for universal gravitation by Eq. 2 1:

$$F = G\frac{m_1 m_2}{r^2}$$
Eq. 2 1

Where F is the gravitational force acting between two objects, m_1 and m_2 are the masses of the objects, r is the distance between the centers of their masses, and G is the gravitational constant.[3]

Sir James Clerk Maxwell (Maxwell):
Maxwell was the first who introduced theory to describe electromagnetism and light as different manifestations of the same phenomenon. Maxwell demonstrated that electric and magnetic fields travel through space as waves moving at the speed of light. Maxwell defined, the mathematical form for electromagnetism by Eq. 2 5:

$$\nabla \cdot \boldsymbol{E} = \frac{\rho}{\epsilon_0}$$
Eq. 2 2

$$\nabla \cdot \boldsymbol{B} = 0$$
Eq. 2 3

$$\nabla \times E = -\frac{\partial \boldsymbol{B}}{\partial t}$$
Eq. 2 4

$$\nabla \times \boldsymbol{B} = \mu_0 \left(\boldsymbol{J} + \epsilon_0 \frac{\partial \boldsymbol{E}}{\partial t} \right)$$
Eq. 2 5

Where E is the electric field, B is the magnetic field, ρ is the electric charge density, J is the current density, e_0 is the vacuum permittivity, and μ_0 is the vacuum permiability.[4][22]

Sir Max Karl Ernst Ludwig Planck (Max Planck):
Max Planck discovered the energy quanta(minimal element of the energy). This energy quanta is known by Planck constant "h" and value of h =

662607015×10^{-34} J Hz^{-1}.
Planck constant is considered as the Universal-constant along with G (Gravitation constant), c (speed of light) and kB(Boltzmann constant). The values of these four Universal constants are used as under to arrive at natural units for length, time, mass, and temperature. These natural units are known as Planck scale units are as under.

$$Planck\ length\ (l_p) = \sqrt{\frac{hG}{c^3}} \qquad = 1.616255(18) \times 10^{-35}\ m \quad \text{Eq.2 6}$$

$$Planck\ mass\ (m_p) = \sqrt{\frac{hc}{G}} \qquad = 2.176434(24) \times 10^{-8}\ kg \quad \text{Eq.2 7}$$

$$Planck\ time\ (t_p) = \sqrt{\frac{hG}{c^5}} \qquad = 5.391247(60) \times 10^{-44}\ s \quad \text{Eq.2 8}$$

$$Planck\ temperature\ (T_p) = \sqrt{\frac{hc^5}{hk_B^2}} \qquad = 1.416784(16) \times 10^{32}\ K \quad \text{Eq.2 9}$$

Where, Gravitation constant (G)=

$67430 \times 10^{-11}\ \frac{Nm^2}{kg^2}$, Speed of light (c) =299 792 458 m/sK, and Boltzmann constant (kB) =1.380649 ×10^{-23} joule per kelvin (K). [5][23] [24]

Standard Model:
The Standard Model of Particle Physics is the widely accepted and best theory to describe the most basic building blocks of the universe. In Standard Model[8], elementary particles are divided into two groups, elementary fermions and elementary bosons. Here, elementary fermions are the matter particles and the elementary bosons are the force particles. It explains how particles called quarks an explains how force carrying particles called bosons, influence the quarks and leptons.

Energy:
The joule (J) is the unit of energy in the International System of Units (SI).It is equal to the amount of work done when a force of one newton displaces a mass through a distance of one meter in the direction of that force. The common forms of energy include the kinetic energy of a moving object, and the potential energy stored by an object. Energy is a conserved quantity - the law of conservation of energy states that energy can be converted in form, but not created or destroyed. [25]

Mass:
The SI base unit of mass is the kilogram (kg). Mass is an intrinsic property of a body. Mass can be ex-

perimentally defined as a measure of the body's inertia, meaning the resistance to acceleration (change of velocity) when a net force is applied.[26]

Energy-mass relation:
The relationship between mass and energy is described by the formula "E=mc2". The equation says energy and mass are interchangeable, it means mass can covert to energy and energy can converts to mass.The "c" is speed of light with constant value of "299 792 458 m / s" and the relationship between energy and mass is described by the conversion factor "c2".[21]

Minkowski space:
It is a combination of three-dimensional Euclidean space and time into a four -dimensional manifold. The mathematical model of space-time is called Minkowski space and it is essential in the description of general relativity.[2]

General relativity:
It mentions about gravitation effect between masses results from their wrapping of space-time. Here space-time tells matter how to move and matter tells space-time how to curve. The space-time is the back ground, curvature of space-time is the gravity.[6][7] Albert Einstein defined, the mathematical form for General relativity by Eq. 2 10:

$$R_{\mu\nu} - \frac{1}{2}Rg_{\mu\nu} + \Lambda\, g_{\mu\nu} = kT_{\mu\nu}$$

Eq. 2 10

Where, the Einstein gravitational constant is defined as k=8πG/c^4 ≈ 2.07665 (5)×10^{-43}N^{-1}, where G is the Newtonian constant of gravitation and c is the speed of light in vacuum.[27]

Loop Quantum gravity (LQG):
It mentions that space-time itself made of discrete quanta, and quanta made of finite loops with nodes connecting them. It has minimum value of length, area, volume and time. Space-time quanta volume resides at nodes intersection, loops represents two dimension area, large network of these loops and nodes called spin network. Space is defined by geometry of this spin network. And time is defined by movement of spin network. It is the theory of quantum gravity.[9][16]

Super symmetry:
Super symmetry is an extension of the Stand-ard Model that aims to fill some of the gaps and is a theoretical framework in physics that suggests the existence of a symmetry between particles with integer spin (bosons) and particles with half-integer spin (fermions). A super symmetric theory is a theory in which the equations for force and the equations for matter are identical. It predicts a partner particle for each particle in the Standard Model.[28][29][30][31][32]

Super gravity:
Super gravitytheory is the combination ofSuper symmetry theory and General relativity theory.Super gravity, a type of quantum field theory of elementary subatomic particles and their interactions that is based on the particle symmetry known as super symmetry and that naturally includes the gravitational force along with the other fundamental interactions of matter - the electromagnetic force, the weak force, and the strong force.[33][34][35]

String theory:
String theory is inspired by the standard model. The fundamental particles of the standard model replaced by even more fundamental one dimensional strings. String theory describes how the string propagate from the space and interact with each other. These strings vibrate in many extra space-time dimensions. It claims to be Theory of Everything.[8][9][10][11]

Superstring theory:
Superstring theory is the combination ofSuper symmetry theory and String theory. It aims to fill some of the gaps in standard model by modelling all of the particles and fundamental forces as vibrations of tiny super symmetric strings[33]. It claims to be Theory of Everything.

M-Theory:
M-theory unites all the consistent versions of string theories.M-theory brought major five versions of superstring theories and standalone super gravity altogether through dualities which relate these theories with each other. M-theory has strong claims to be Theory of Everything. [36][37][38]

The theory of aether:
It was postulated by physicists that aether permeated all throughout space, providing a medium through which light could travel in a vacuum. But later through experiments by physicists,

it was declared that aether does not exist.[13]

Higgs field:
It exist everywhere in the space and having its elementary particle called Higgs boson. Any elementary particle while passing through this Higgs field will interact with Higgs boson and obtain the mass.[39]

Dark matter:
It is postulated by astrophysicists that dark matter contributes 27% of the total mass-energy content in present day observable universe.[14][15]

Dark energy:
It is postulated by astrophysicists that dark energy contributes 68% of the total mass-energy in present day observable universe.[16][17]

Ordinary matter:
In standard model it is accepted as the fundamental matter particles called fundamental fermions. They are 'quarks and antiquarks' and 'leptons and antileptons'.[8]

2.2   Review of each literature for research questions and subject
These existing researches address different individual subject. Some of them have partial matching scientific concept to my research questions and to my research subject. Some of them partially answer to my individual question and my research subject.

Newton's Law of Universal Gravitation:
It is the foundation of classical mechanics which formulate the gravity for the classical part of the universe and was formulated by Newton. Even now a days, this gravitation equation is widely used for the most applications in classical mechanics. But this theory really do not talk about how gravity works and it does not apply to quantum mechanics.

Sir James Clerk Maxwell (Maxwell):
Research byMaxwell was the foundation for the classical theory of electromagnetic dynamics. Maxwell had derived an electromagnetic wave equation with a velocity for light and deduces that light is an electromagnetic wave. He had presented that light is an electromagnetic disturbance propagated through the field according to electromagnetic laws.He had presented electromagnetic nature of the Universe which describes partial nature of the Universe.

Sir Max Karl Ernst Ludwig Planck (Max Planck):
Research byMax Planckwas the foundation for the quantum theory. Max Planck had described existence of energy at quantum level and subsequent quantum value of length, mass, time, temperature were derived. And these quantum values are used to describe Nature of the Universe at quantum level. But again Max Planck theory does not talk about, what is the quantum existence itself? And what is the quantum nature itself?

Energy:
So far energy is well defined from classical scale to Planck scale of1.9561×10^9 Jand 1.22×10^{19} GeV. But Dark energy contributes 68% of the total mass-energy in present day observable universe and 95% of the present day observable universe is still unknown. Moreover there is energy beyond observable universe which is unknown also. This may require further research on existence and true nature of energy.[16]

Mass:
So far mass is well defined from classical scale to Planck scale of $2.176434(24) \times 10^{-8}$kg. But Dark matter contributes 27% of the total mass-energy content in present day observable universeand 95% of the present day observable universe is still unknown. Moreover there is mass beyond observable universe which is unknown also. This may require further research on existence and true nature of mass.[26]

Energy-mass relation:
"$E=mc^2$"has well defined he relationship between mass and energy. Which is bind to speed of light (299 792 458 m / s). While further research required on energy and mass, for 95% of the present day observable universe. It may also require research on energy-mass relation for 95% of the present day observable universe.

Standard Model:
The Standard Model explains three of the four fundamental forces that govern the universe: electromagnetism, the strong force, and the weak force. Electromagnetism is carried by photons and involves the interaction of electric fields and magnetic fields. The strong force, which is carried by gluons, binds together atomic nuclei

to make them stable. The weak force, carried by W and Z bosons, causes nuclear reactions that have powered our Sun and other stars for billions of years. The fourth fundamental force is gravity, which is not adequately explained by the Standard Model.The Standard Model explains nature of the ordinary matter which contributes 5% of the present day observable universe[14], and theoretically and experimentally it is well accepted by physicists. But, as we know much of the universe consists of dark matter and dark energy that do not fit into the Standard Model. [40] [8]

General relativity:
It talks about space-time, nature of space-time, nature of gravity and mathematical model. It is the greatest theory for over a century which describes nature of space-time and gravity, and it is the foundation for development of other theories of everything. But General relativity collapses at singularity inside the black hole and at initial state of big bang. It does not fit with quantum mechanics. Due to this General relativity is incomplete. General relativity treats space-time as a bending of the continuous back ground of space-time not as the discrete particle that confer a force[7][6].It does not talk about what is the space-time itself? How and from where the existence of space-time and matter come from?

Loop Quantum gravity (LQG):
It incorporates matter of standard model and extends general relativity concept with different structure of space-time to describe nature of quantum gravity. It really talks about space-time made of discrete quanta. But Loop Quantum gravity (LQG) is theory of quantum gravity only.[6]

Super symmetry:
It predicts a partner particle for each particle in the Standard Model. If evidence of these new particles found, it would solve a major problem with the Standard Model - fixing the mass of the Higgs boson and could help explain certain phenomena, such as the nature of dark matter and the hierarchy problem in particle physics. But there have been multiple experiments on Super symmetry that have failed to provide evidence that it exists in nature. [28][29][30][31]

Super gravity:
It talks about nature of gravity.The Super gravityis the theory to unite quantum gravity and classical gravity through the combination of-Super symmetry theory and General relativity theory. But there have been multiple experiments on Super symmetry that have failed to provide evidence that it exists in nature.[33]

String theory:
It incorporates standard model by replacing fundamental particles of standard model by even more fundamental one dimensional strings. The string theory describes nature of Multiverse with higher and/or extra dimensions with vibrating strings in higher and/or extra dimensions. Here, Space-time is the background in which strings vibrate but it does not talk about what is the space itself? [9][41][42]

Superstring theory:
Superstringtheory is the combination ofSuper symmetry theory and String theory. But there have been multiple experiments on Super symmetry that have failed to provide evidence that it exists in nature. In string theory, thespace-time is the background in which strings vibrate but it does not talk about what is the space itself? Superstring theory has multiple versions.[33]

M-Theory:
M-theory unites all the consistent versions of string theories.M-theory brought major five versions of superstring theories and standalone super gravity altogether through dualities which relate these theories with each other. M-theory is the strong candidate for Theory of Everything.But again, Space-time is the background in which strings vibrate but it does not talk about what is the space itself?[36][37]

The theory of aether:
It was great attempt to describe nature of space through aether medium at very early stage. Unfortunately not much work done on it. It did not mention about space itself? , not mentioned about space-time and not mentioned the properties of aether itself. The experiments by physicists did not show any presence of aether.[13]

Higgs field:
It incorporates standard model and describes nature of Universe through Higgs field everywhere in the space and how particles obtain the mass[39]. But It does not describe about the Higgs field existence come from? It does not talk about the

existence of space-time and matter come from?

Dark matter:

Dark matter is unknown form of matter and it is limited to content of observable universe only[14][15]. Dark matter contributes 27% of the total mass-energy content in present day observable universe. The astrophysicists are still in search of dark matter.

Dark energy:

Dark energy is unknown form of energy and it is limited to content of observable universe only.Dark energy contributes 68% of the total mass-energy in present day observable universe. It is responsible for expansion of the universe[16][17]. The astrophysicistsare still in search of dark energy.

Ordinary matter:

Ordinary matter existence is accepted in form of elementary fermions. In the past decades several research have redefined elementary matter particles[8]. And questions are still open that what is the ultimate matter particle? Matter particle existence come from where? Each and every research done by physicists have different roots of origination with different sets of questions in their minds. Research history started long back time but I start review from Sir Isaac Newton. Sir Isaac Newton with his observations, experiences, questions, references and research, described Nature of the Universe in terms of motion of the objects, relation between the objects and the forces acting on through Newton's laws of motion and Newton's Law of Universal Gravitation, laying the foundation for classical mechanics. Sir Isaac Newton had theorized limited nature of the Universe with formulas of motion and Universal Gravitation. In the time since Newton, the concept of energy and concept of mass was gradually developed and built the field of classical mechanics. Sir James Clerk Maxwell (Maxwell)with his observations, experiences, questions, references and research, described Nature of the Universe in terms of electromagnetic field. He described electric and magnetic fields travel through space as waves moving at the speed of light. Maxwell had theorized limited nature of the Universe with electromagnetism and its mathematicalequations. Sir Max Karl Ernst Ludwig Planck (Max Planck) with his observations, experiences, questions, references and research, defined quantum scale

values and formulas. This quantum scale called Planck scale and Planck values are used to describe partial Nature of the Universe at quantum level. Sir Albert Einstein with his observations, experiences, questions, references and research, described Nature of observable universe through Photon, Special relativity, mass-energy equivalence, and General relativity. Sir Albert Einstein had theorized broad nature of the Universe with photon particle, mass and energy relationship with mathematical formula, motion, space-time and Universal Gravitation with mathematical equation. The Standard Model was developed in stages throughout the latter half of the 20th century, through the work of many scientists worldwide, the development of the Standard Model was driven by theoretical and experimental particle physicists. It describes Nature of Universe through elementary particles called elementary fermions and elementary bosons. Here, elementary fermions are the matter particles and the elementary bosons are the force particles.This theory describes the nature ofbasic building blocks of the universe. The Standard Model explains limited nature of the observable universe with particle physics. It explains ordinary matter which contributes 5% of the present day observable universe.But, remaining 95% of the universe consists of dark matter and dark energy that do not fit yet into the Standard Model.The Standard Model explains three of the four fundamental forces that govern the universe: electromagnetism, the strong force, and the weak force. The fourth fundamental force is gravity, which is not adequately explained by the Standard Model. Theories of Higgs field, Loop Quantum gravity (LQG), Super symmetry, Super gravity, String theory, Superstring theory, and M-Theory aim to fill the gaps in standard model for remaining 95% of the present day Observable universe and to fit the unified gravity in standard model. Also, Theories of Loop Quantum gravity (LQG), Super symmetry,Super gravity, String theory, Superstring theory, and M-Theory describe the nature of space-time, nature of particles, and nature of unified gravity beyond the standard model. These theories aim to describe nature of Observable universe and beyond with extra dimensions,scientific models, mathematical models and mathematicalforms. And claim to be theory of everything.

2.3 Importance of the research questions and Review of all literatures for each re-

search question

All research questions are very important for the research subject. This section describes importance of each research questionand review all above literaturesformy important research questions.Some of them have partial matching scientific concept to my research questions and to my research subject. And these existing research review partially answer to my each research as under.

1   space and matter

In most existing scientific research the existence of space is just discussed and/or accepted as the vacuum, as the empty, as the void, as the space-time fabric[7], as the isotropic[43], as the homogenous[43], as the Minkowski space[2], with space geometry to define shape of the space[43], as the filled by any medium[13], and filled with major existence of dark matter[14] and dark energy[16]. And,some theories have defined advance space such as, In Loop Quantum Gravity (LQG) the Space is defined by geometry of this spin network and there may be such advance models may have defined by String theory, Super symmetry and Super string theory. In Standard Model[8], elementary particles are divided into two groups, elementary fermions and elementary bosons. Here, elementary fermions are the matter particles and the elementary bosons are the force particles. So, the fundamental matter existence is accepted as the quarks and leptons.But Standard Model just represents 5% of the present day Observable Universe.

2   Higher dimension and/orExtra dimension

Standard model do not fit yet to define unified gravity, dark matter and dark energy. It would be not possible to unite classical theory and quantum theory, and to establish universal and beyond scientific nature without defining higher dimensions and/orextra dimensions. So, Loop Quantum gravity (LQG), Super symmetry, Super gravity, String theory, Superstring theory, and M-Theory have included and described higher dimensions and/or extra dimensions. Without higher dimensions and/or extra dimensions,it would be not possible to define theory of everything.

3   Energy, Mass, and Energy and Mass relation

Energy and Mass are the fundamental properties of any existence or can say Energy-Mass is the fundamental existence or can say any existence can be represented by energy-mass. In standard model the elementary particles are described with elementary value of energy and mass. And there is a relation between elementary value of energy and mass, and so is the interaction between the elementary particles. So, the energy, mass, and energy-mass relationship are the keys to describe nature of everything. So, all the above researches incorporate energy, mass, and energy-mass relationship. And so is the importance of "$E=mc^2$" in all the theories.

4   Gravity

Gravity influence the motion of the objects, the each and every objects which exist in observable universe and beyond. This movement of the objects directly relates with energy and mass of the objects, and relates with the forces acting on the objects (large bodies and quantum particles and all matter bodiesand beyond). All the objects of observable universe and beyond are under continuous effect of gravity. So, the gravity is the key to describe nature of observable universe and beyond in term of force acting on and motion. There are well researches done about gravity. Some of those theories are Newton's Law of Universal Gravitation, General relativity, Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory. The General relativity aims to fill gap in Newton's Law of Universal Gravitation. The Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theoryaim to fill in some gaps in standard model and in general relativity, and aim to unify the quantum gravity and classical gravity. So, without defining true gravity, it would be not possible to describe true nature of the observable universe and beyond.

5   True nature of entire existence Or true nature of everything

What is the space itself? What is the energy itself? What is the mass itself? What is the matter itself? What is the Universe? Where does space come from? Where does energy come from? Where does mass come from? Where does matter come from? How dose Universe create and destroy? Where do all come from and how do all create and destroy? How do all space, matter, and all existence of Universe and of beyond work together? Answers to these questions may describe true nature of entire existence or true nature of everything.

Existence of everything or existence of observable universe and beyond

Research of Aether medium which occupy the empty space[13], Higgs field which is everywhere in the universe[12], Dark matter contributes 27% of the observable universe[14], Dark energy contributes 68% of the observable universe[16], Ordinary matter contributes 5% of the observable universe[14]. All these Aether medium, Higgs field, dark matter, and dark energy concerning about space & mass-energy or unknown existence part of the space &observable universe while ordinary matter is the known part of the observable universe[44]. In summary, for the observable universe only 5% of existence is well known and 95% of existence is not yet well known. Research of Planck scale, General relativity, Standard model, Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory, all these research subjectsaim to describe existence of Observable Universe and of beyond.

Nature of everything or Nature of observable universe and beyond

Newton's Law of Universal Gravitation explains nature of universal force but its scope is limited to classical gravity only. Electromagnetismexplains nature of electro-magnetic dynamicsand its scope is limited to electromagnetic force only. Standard model explainsnature of 5% of observable universe only. It is theoretically and experimentally well accepted. General relativity claims to explain full naturefor observable universe. But for quantum level working it is not accepted as it collapses at singularity and black hole. Also, it is limited nature due to speed of light. Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory claim to explain fullnature for existence of observable universe and beyond. But researches are still going on for final acceptance.

6   Mathematical formfor combine true nature of entire existence Or true nature of everything

The mathematical formis used to present, to evaluate, to prove, and to accept any theoretical theory. The mathematical form presents theory in short form with functions, with rules, with values and units. So, Theory for anyexistence and for nature of that existence, is presented by functions, rules, values, and units. Likewise here, the mathematical form is de-fined to present, to explain, to evaluate, to prove, the entireexistence and nature of that existence for observable universe and beyond. There are well researched mathematical forms presented by Newton's Law of Universal Gravitation, Maxwell's equation, Planck's Law, General relativity, Standard model, Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity, Superstring theory and M-Theory. The mathematical formof Newton's Law of Universal Gravitation, Maxwell's equation, Planck's Law, General relativity, Standard model are well proven and accepted. While research is still going on for mathematical forms of Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity, Superstring theory and M-Theoryfor its final acceptance.

Conclusion of Literature Review

These existing researches address different individual subject. Some of them have partial matching scientific concept to my research questions and to my research subject. Some of them partially answer to my individual question and my research subject. But even by putting all together and/or individual do not give complete satisfied answer to my research subject. Out of which General relativity comes closer to my research subject and rest theories I haven't studied in details.Especially, I feel impressed with Loop Quantum gravity (LQG) as it describes space-time as the quanta, quanta mechanics, and the space is defined by geometry of this spin network [9]. Also, I feel impressed with one dimensional string and extra dimensions[9]. So, when we talk about true nature of everything, none of the above theory as the individual and all together describe entire existence and true nature of entire existence to 100% acceptance. Instead it describes partial existence and partial nature of entire existence to its partial acceptance.

3   Definition of GODEYE

Definition of GODEYE "At the same moment of the time which has vision perpendicular outward and has vision perpendicular inward on unit surface of each and every unit element that is called GODEYE".

4   GeneralDefinition of the Space

Herein this section, I simply define space as "the matter less four dimensionalvolume". But as per existing general scientific information

the space is defined as,the space that exists beyond the earth and its atmosphere and between celestial bodies.Here, space contains a low density of particles, predominantly a plasma of hydrogen and helium as well as electromagnetic radiation, magnetic fields, neutrinos, dust, and cosmic rays. Moreover space also known as the interplanetary space, Interstellar space, and Intergalactic space. Interplanetary space contains the magnetic field generated by the Sun. Interstellar space is the physical space lying beyond the bubbles of plasma, known as astrospheres, formed by stellar winds originating from individual stars. Intergalactic space is the physical space between galaxies.[45] Here in this section is the general definition of space and in next section I continue with more advance definition of space.

5   Advance Definition of the Space and Type of the Space

Here in this section, I define the space as "the four dimensional volume that made of fundamental element(s) which having basic propertieslike energy, mass, force". Which is further defined in more details by type of space. Here, the space itself is the entity and having specific physical properties.The fundamental element(s) are called building blocks of the space, the basic properties of these building blocks interact which transform the dimension of fundamental element(s) of the space and transform the overall form of the space.[46][47] This interaction forms the various type of space elements and integrated space. The result is mainly five types of integrated space, and they are P space (PS), I space (IS), V space (VS), C space (CS), and M space (MS).

5.1Type of Space

The very fundamental element of the space is called $PS_{UE}$and any change in the fundamental physical properties of PS_{UE}can transform it from PS_{UE} to another form. So, the changes in fundamental physical properties create more forms of the space elements and those are called IS_{UE},VS_{UE},CS_{UE},and MS_{UE}.And orderly Integration of these five elements creates five types of spaces accordingly, and they are called P space (PS), I space (IS), V space (VS), C space (CS) and M space (MS).

P space (PS) in full form is called as pure space. And P space (PS) is composed of P space unit elements and the unit element is called as PS_{UE}.

I space (IS) in full form is called as Invisible space. And I space (IS) is composed of I space unit elements and the unit element is called as IS_{UE}.

V space (VS) in full form is called as vibrating space. And V space (VS) is composed of V space unit elements and the unit element is called as VS_{UE}.

C space (CS) in full form is called as charged space. And C space (CS) is composed of C space unit elements and the unit element is called as CS_{UE}.

M space (MS) in full form is called Matter space. And M space (MS) is composed of M space unit elements and the unit element is called as MS_{UE}.

Here in this section, is advance definition of space and short description for resulted type of space. In the next section, I continue with much advance definition of 'type of space'. And for much advance define type of space, First I continue to define Dimension $P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$,and totality of existence.

Dimension $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$, and Totality of Existence

Four Dimensions are commonly known to us. They are three spatial dimensions to determine position, location, shape, size and volume of the object. The fourth dimension is a dimension of time, dimension is one way to measure physical change. Three spatial dimensions denoted by (X, Y, Z)[48] and Time dimension is denoted by (T). So, they together, four dimensions denoted by (X, Y, Z, T)[49].

In our daily life experience, we observe many objects around us with different shapes, sizes, volumes, locations, positions, changes and colors. We identify these objects by our eye vision and/or by physical touch and/or by feeling with processing by our mind and/or imagination by our mind. In the world of science and in general these objects are known as the 3D objects. Here, 3D represents three dimensions of the object. These three dimensions (3D) are used to know the sizes, volumes, locations and positions of the objects. For example the size of the room that we are living in, it has height, length and width. We often label them as the (X, Y, Z) of the room. And these 3D (X, Y, Z) values, we multiply to calculate size or space of the room. Many of the 3D objects like bacteria, human, animal, computer, car, train and aero plane have comparatively more complex shapes. For these objects we have to apply 3D geometry function to calculate sizes, volumes, positions and locations of the objects. The 3D objects are either stationary or moving or changing, for those objects which

are moving and changing positions and locations, some objects keep changing its sizes, volumes, energy, temperature and other properties too. For such additional physical changes and chemical changes or physical events or chemical events, we have additional Fourth dimension of time (T).

6.1 Dimension P(X, Y, Z, T)

In Figure 6 1, $P_{(X, Y, Z, T)}$ is the dimension of pure space. Pure space is constant (persistent, eternally, continuous, endless) in nature. It is the dimension where space becomes pure, all of Newtonian mass (according to standard model)[26], Gravi
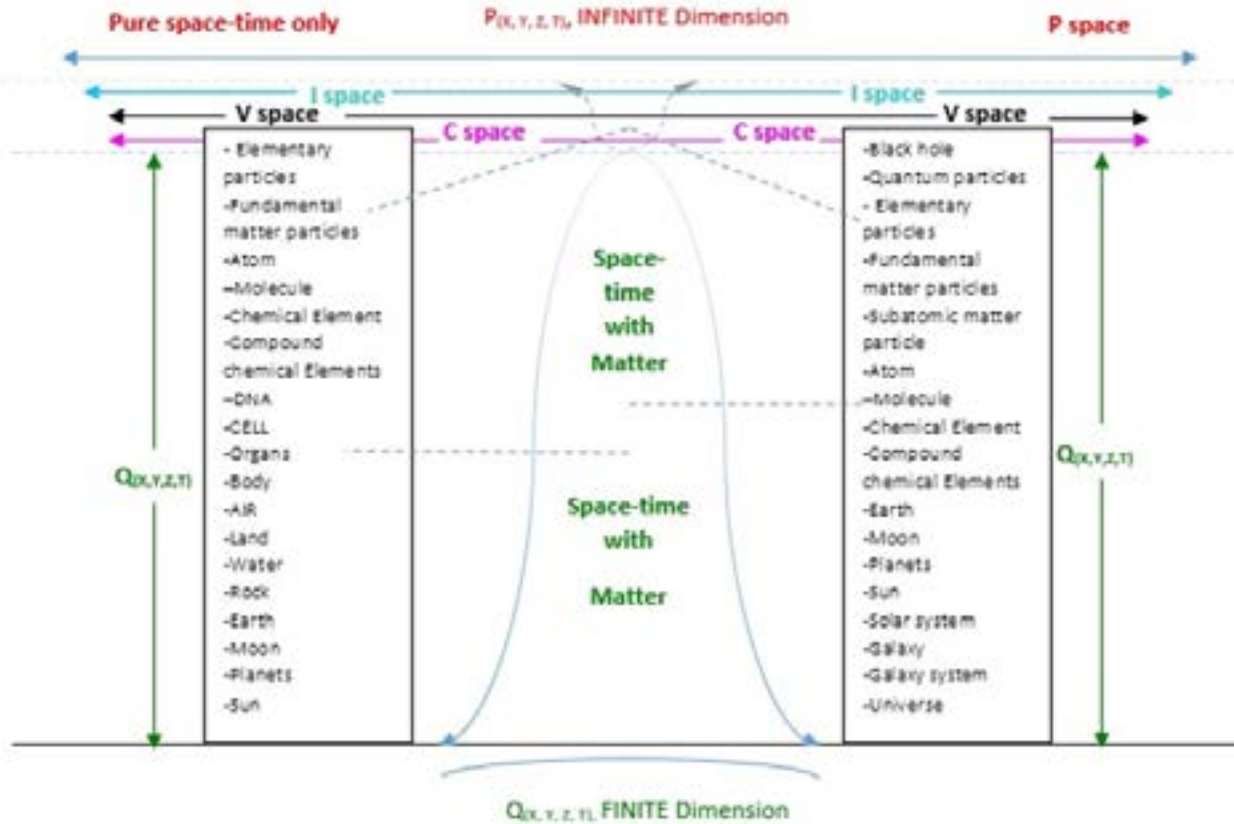

Figure 6 1:
End to End Dimensions P(X, Y, Z, T) and Q(X, Y, Z, T) and Entire Existence

So, Dimension of any object can be described by its four dimension 4D (X, Y, Z, T) [49]. Likewise the physical Universe is described by space-time. So, I take space-time as the 4D dimension of the Universe[44]. Following from above discussion about 4D space-time (X, Y, Z, T), now I derive two 4D space-time called $P_{(X, Y, Z, T)}$ andQ(X, Y, Z, T).Figure 6 1demonstrates dimensions $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$, its properties, scope and entire existence within. $P_{(X, Y, Z, T)}$ represents the 4D plane of 'space-time (pure space-time only)' and $Q_{(X, Y, Z, T)}$ represents the 4D plane of the 'space-time (space-time with matter)'. So, there are the space-time and matter only in between the range of $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$. But both 4D planes have different properties of space-time. So, both 4D planes are totally distinct in existence.

tational mass (according to standard model)[26], Inertial mass (according to standard model)[26], Atomic mass (according to standard model)[26], Elementary mass (according to standard model) [26][8]become zero, all of four fundamental forces (according to standard model)[50]becomes zero, and pressure (according to standard model)[51]becomes zero, absence of matter (particle less), absence of fundamental temperature (according to standard model)[51] and exist infinite pure energy, pure mass and exist pure time only. $P_{(X, Y, Z, T)}$ describes and having existence of the pure space and pure time with pure energy and pure mass only. Pure space is just only one in count with dimension $P_{(X, Y, Z, T)}$. Pure space is the uniform and eternal with dimension $P_{(X, Y, Z, T)}$. And $P_{(X, Y, Z, T)}$ is the infinite dimension.

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6.2 Dimension $Q_{(X, Y, Z, T)}$

In Figure 6 1, $Q_{(X, Y, Z, T)}$, represents dimension of the space-time with matter. The 'space-time with matter' is variable in nature. Here, the $Q_{(X, Y, Z, T)}$ is the finite dimension of space-time which transformed/converted from C space, with having matter (particle), with having all Newtonian mass (according to standard model)[26], Gravitational mass (according to standard model), Inertial mass (according to standard model), Atomic mass (according to standard model), Elementary mass (according to standard model), with having all four fundamentalforces (according to standard model) [50], with having pressure (according to standard model), having fundamental temperature (according to standard model) and having variable energy, variable mass with variable dimensions. Space-time of the $Q_{(X, Y, Z, T)}$ comprises of quantum particles, elementary matter particles, various forms of mass-energy, atoms, molecules, planets, moons, stars, star systems, galaxies [44] and having variable dimensions. $Q_{(X,Y,Z,T)}$ are the multiple dimensions in count and each $Q_{(X,Y,Z,T)}$ dimension is separate and different than other $Q_{(X,Y,Z,T)}$ dimension. It is the transient dimension.

6.3 $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$

Both $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$ are the dimensions of space-time but both represent different properties of space-time. They represent two different 4D space-time planes, these two 4D space-time planes are opposite to each other with opposite dimensional properties to each other.

InFigure 6 1Error! Reference source not found., from $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$. It shows P space transforms to I space, I space transforms to V space, V space transforms to C space and C space transforms to space-time with matter (Refer: Transformation of the Space, Transformationof Space and Matter).

InFigure 6 1Error! Reference source not found., from $Q_{(X,Y,Z,T)}$ to $P_{(X,Y,Z,T)}$. It shows space-time with matter transforms to C space, C space transforms to V space, V space transforms to I space, I space transforms to P space (Refer: Transformation of the Space, Transformationof Space and Matter). Here the space-time with matter is the transient of charged space-time and ultimately transient of pure space-time. So, the space-time with matter is created from and emerged out from pure space-time. The $Q_{(X, Y, Z, T)}$ is created from and emerged out from $P_{(X, Y, Z, T)}$. So, the

$Q_{(X, Y, Z, T)}$ is the transient dimension of $P_{(X, Y, Z, T)}$. When transient stateis 'plane of space-time with matter'or'Mspaceplane',the$Q_{(X,Y,Z,T)}$istheMS$_{(X,Y,Z,T)}$. When transient state is 'C space plane', the $Q_{(X, Y, Z, T)}$ is the $CS_{(X, Y, Z, T)}$. When transient state is 'V space plane', the $Q_{(X, Y, Z, T)}$ is the $VS_{(X, Y, Z, T)}$.

6.4 Totality of Existence

As described inFigure 6 1Error! Reference source not found., there are two end to end 4D space-time planes and they represented by $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$. From $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$,in sequence they contained P space plane, I space plane, V space plane, C space plane, and 'plane of space-time with matter' or 'M space plane'. From $Q_{(X, Y, Z, T)}$ to $P_{(X, Y, Z, T)}$,in sequence they contained 'plane of space-time with matter' or 'M space plane', C space plane, V space plane, I space plane, and P space plane.

InFigure 6 1, this Dimension $Q_{(X, Y, Z, T)}$ represents existence of all quantum particles, elementary matter particles, various forms of mass-energy, atoms, molecules, the world we human live-in, planets, moons, stars, star systems, galaxies, physical universe [44]. As this $Q_{(X, Y, Z, T)}$ can be extended to 'C space plane', and to 'V space plane'. And, P space plane, I space plane, V space plane, C space plane represent all the space existence. So, Everything that exist and that non-exist fall within the range of these dimension $P_{(X,Y,Z,T)}$ and dimension $Q_{(X,Y,Z,T)}$. Here in this section, I defined Dimension $P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$ and totality of existence. In the next section, I continue with much advance definition of 'type of space'. And for much advance define type of space, I first advance define Dimension $P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$ and totality of existence.

7 Advance Definition of the type of Space

For much advance define type of space.Here,I first define P space with reference to Dimension $P_{(X, Y, Z, T)}$and with reference to $Q_{(X, Y, Z, T)}$. And then advance define Dimension $P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$.Next I continue for much advance define all type of space.

7.1 Definition of P Space

Here, I keep space definition limited to P space only. And, P space is defined here with reference to Dimension $Q_{(X, Y, Z, T)}$ and with reference to Dimension $P_{(X, Y, Z, T)}$.

7.1.1 P space definition with reference to Dimension $Q_{(X, Y, Z, T)}$

P space–"It is the pure space. It is the space with infinite volume, surfaceless, boundaryless, shapeless, positionless, dimensionless (absence of four fundamental dimensions), massless (absence of all fundamental mass (Newtonian mass (according to standard model), Gravitational mass (according to standard model), Inertial mass (according to standard model), Atomic mass (according to standard model), Elementary mass (according to standard model))), motionless (movementless, vibrationless, waveless), mass-energy contentless (due to absence of all fundamental mass (Newtonian mass (according to standard model), Gravitational mass (according to standard model), Inertial mass (according to standard model), Atomic mass (according to standard model), Elementary particle mass (according to standard model))), (forceless (absence of four fundamental forces (according to standard model)), matterless (particleless), temperatureless (absence fundamental temperature (according to standard model)), with pure time (absence fundamental time (according to standard model)) and having infinite pure energy (absence of energy of 'I space plane', 'V space plane', 'C space plane', and 'M space plane'), having infinite pure mass (absence of mass of 'I space plane', 'V space plane', 'C space plane', and 'M space plane')".

Explanation:

For simple understanding, Dimension Q(X, Y, Z, T) is the dimension of the universe we live in and we define the pure space from there. While the pure space is the beyond the universe we live in. At the pure space the dimension Q(X, Y, Z, T) does not exist. So, at pure space that all the fundamental mass-energy contents of the universe we live in do not exist. Fundamental physical properties [51] like mass, energy, force, power, pressure, temperature of the universe we live in do not exist in pure space. The temperature becomes irrelevant in pure space. The fundamental time (time dimension of the universe we live in) transforms to pure time dimension. And the fundamental energy (energy of the universe we live in) transforms to pure energy, the fundamental mass (mass of the universe we live in) transforms to pure mass.

7.1.2 P space definition with reference to Dimension $P_{(X, Y, Z, T)}$

P space– "It is the pure space. It is the space with infinite volume, with pure dimension ($P_{(X, Y, Z, T)}$, where $Q_{(X, Y, Z, T)}$ =0), with pure energy (energy in pure dimension only), with pure mass (mass in pure dimension only), motionless (movementless, vibrationless, waveless), pure mass-energy content (mass-energy content in pure dimension only), with pure force (Force in pure dimension only), matterless (particleless), with pure temperature (Temperature in pure dimension only), with pure time (Time in pure dimension only) and having infinite pure energy (absence of energy of 'I space plane', 'V space plane', 'C space plane', and 'M space plane'), having infinite pure mass (absence of mass of 'I space plane', 'V space plane', 'C space plane', and 'M space plane')".

"OR"

P space– "It is the pure space. It is the space with infinite volume, surfaceless, boundaryless, shapeless, positionless, with pure dimension ($P_{(X,Y,Z,T)}$, where $Q_{(X,Y,Z,T)}$ =0), with pure mass (absence of all fundamental mass (Newtonian mass (according to standard model), Gravitational mass (according to standard model), Inertial mass(according to standard model), Atomic mass (according to standard model), Elementary mass (according to standard model))), motionless (movementless, vibrationless, waveless), pure mass-energy content (absence of all fundamental mass-energy content (according to standard model)), with pure force (absence of four fundamental forces (according to standard model)), matterless (particleless), with pure temperature (absence of fundamental temperature (according to standard model)), with pure time ($P_{(X,Y,Z,T)}$, where $Q_{(X,Y,Z,T)}$ = 0), and having infinite pure energy(absence of energy of 'I space plane', 'V space plane', 'C space plane', and 'M space plane'), having infinite pure mass (absence of mass of 'I space plane', 'V space plane', 'C space plane', and 'M space plane')".

Explanation:

For simple understanding, Dimension $P_{(X, Y, Z, T)}$ is the dimension of beyond the observable universe we live in and we define the pure space from there. At the pure space the dimension $Q_{(X, Y, Z, T)}$ does not exist. So, at pure space that all the fundamental mass-energy contents of the observable universe we live in do not exist. Fundamental physical properties [51] like mass, energy, force, power, pressure, temperature of the observable universe we live in do not exist in pure space. The temperature becomes irrelevant in pure space.

But pure space exist with pure energy, pure mass, pure force, pure temperature and pure time. Next,I continue to advance define dimension $P_{(X, Y, Z, T)}$- $Q_{(X, Y, Z, T)}$.

7.2 Advance Definition of Dimension $P_{(X, Y, Z, T)}$ and $Q_{(X, Y, Z, T)}$

To Advance definethe type of space, first I redefinethe dimension $P_{(X, Y, Z, T)}$- $Q_{(X, Y, Z, T)}$ described inFigure 6 1,to its advance form as shown in-Figure 7 1. Here, the $P_{(X, Y, Z, T)}$- $Q_{(X, Y, Z, T)}$ is represented in alternate way,wherethe PS plane constitutes of element 'PS$_{UE}$', IS plane constitutes of elements 'PS'$_{UE}$+ I'S$_{UE}$', VS plane constitutes of elements 'PS''$_{UE}$+ IS'$_{UE}$+ V'S$_{UE}$', CS plane constitutes ofelements 'PS'''$_{UE}$+ IS''$_{UE}$+

VS'$_{UE}$+C'S$_{UE}$', and MS plane constitutes of elements 'PS''''$_{UE}$+ IS'''$_{UE}$+ VS''$_{UE}$+CS'$_{UE}$+M'S$_{UE}$'. And these elements are described and explained as in Table 7 1. Also, Figure 7 1 describes, PS plane is represented with dimension $P_{(X, Y, Z, T)}$ orPS$_{(X,Y,Z,T)}$.And,$P_{(X,Y,Z,T)}$orPS$_{(X,Y,Z,T)}$dependson'PS$_{UE}$'. IS plane is represented with dimension IS$_{(X, Y, Z, T)}$. And, IS$_{(X, Y, Z, T)}$ depends on 'PS'$_{UE}$+ I'S$_{UE}$'. VS plane is represented with dimension VS$_{(X, Y, Z, T)}$. And, VS$_{(X, Y, Z, T)}$ depends on 'PS''$_{UE}$+ IS'$_{UE}$+ V'S$_{UE}$'. CS plane is represented with dimension CS$_{(X, Y, Z, T)}$. And, CS$_{(X, Y, Z, T)}$ depends on 'PS'''$_{UE}$+ IS''$_{UE}$+ VS'$_{UE}$+C'S$_{UE}$'. MS plane is represented with dimension MS$_{(X, Y, Z, T)}$ or $Q_{(X, Y, Z, T)}$.And, MS$_{(X, Y, Z, T)}$ or $Q_{(X, Y, Z, T)}$ depends on 'PS''''$_{UE}$+ IS'''$_{UE}$+ VS''$_{UE}$+CS'$_{UE}$+M'S$_{UE}$'.
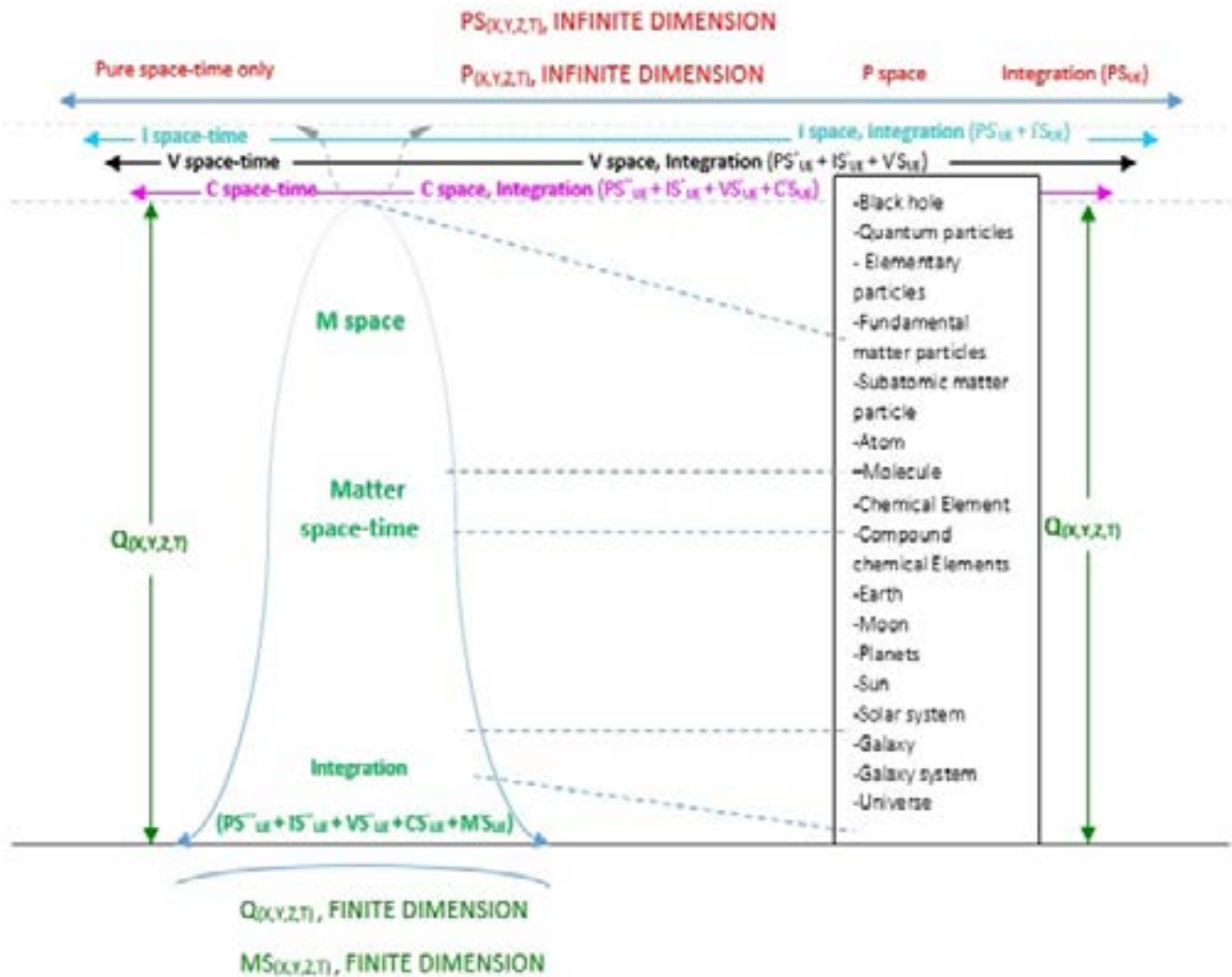

Figure 7 1:
Advanced End to End Dimension

Here in Figure 7 1, it shows existence of totality in the form of different types of spaces with its unit elements. P space (PS) described along with unit element PS_{UE}, I space (IS) described along with unit element IS_{UE}, V space (VS) described along with unit element VS_{UE}, C space (CS) described along with unit element CS_{UE} and M space (MS) described along with unit element MSUE.And these unit elements are described and explained as in Table 7 1. And, the transformation of different type of unit elements,in different type of space, are-

space-time plane, and VS plane, and Integration of (PS''_{UE}+ IS'_{UE}+ $V'S_{UE}$) have the same meaning. So, in Advance dimension, The Charged space (CS), Charged space-time, and C space-time, and C space-time plane, and CS plane, and Integration of (PS'''_{UE}+ IS''_{UE}+ VS'_{UE}+$C'S_{UE}$) have the same meaning. So, in Advance dimension, The Matter space (MS), and Matter space-time, and M space-time, and M space-time plane, and MS plane, and Integration of (PS''''_{UE} + IS'''_{UE}+ VS''_{UE}+CS'_{UE}+$M'S_{UE}$)have the same meaning.

	Transformation of PS_{UE} ineach space type	Transformation of IS_{UE} ineach space type	Transformation of VS_{UE} ineach space type	Transformation of CS_{UE} ineach space type	Transformation of MS_{UE} ineach space type
Unit element in PS	PS_{UE} or$P'S_{UE}$				
Unit element in IS	PS'_{UE}	$I'S_{UE}$			
Unit element in VS	PS''_{UE}	IS'_{UE}	$V'S_{UE}$		
Unit element in CS	PS'''_{UE}	IS''_{UE}	VS'_{UE}	$C'S_{UE}$	
Unit element in MS	PS''''_{UE}	IS'''_{UE}	VS''_{UE}	CS'_{UE}	$M'S_{UE}$

Table 7 1:
Unit element transformation

described and explained as in Table 7 1. Table 7 1, describes the unit element PS_{UE} or$P'S_{UE}$ of PS transforms to PS'_{UE} inIS plane, PS_{UE} or$P'S_{UE}$ of PS transforms to PS''_{UE} inVS plane, PS_{UE} or$P'S_{UE}$ of PS transforms to PS'''_{UE} inCS plane, PS_{UE} or$P'S_{UE}$ of PS transforms to PS''''_{UE} inMS plane. The unit element$I'S_{UE}$of IStransformstoIS'_{UE} inVS plane, $I'S_{UE}$ of IS transforms to IS''_{UE} inCS plane, and $I'S_{UE}$ of IS transforms to IS'''_{UE} inMS plane. The unit element $V'S_{UE}$ of VS transforms to VS'_{UE} inCS plane, and $V'S_{UE}$ of VS transforms to VS''_{UE} inMS plane. The unit element $C'S_{UE}$ of CS transforms to CS'_{UE} inMS plane. The MS plane has unit element $M'S_{UE}$. So, in Advance dimension, The Pure space (PS), and Pure space-time, and P space-time,and P space-time plane,and PS plane, and Integration of (PS_{UE} or$P'S_{UE}$) have the same meaning. So, in Advance dimension, The Invisible space (IS), and Invisible space-time, and I space-time,and I space-time plane, and IS plane, and Integration of (PS'_{UE} + $I'S_{UE}$) have the same meaning. So,inAdvancedimension,TheVibrating space(VS), and Vibrating space-time, and V space-time,and V

From Table 7 1,The Integrated unit element form of each space type is represented as under.

Unit element of PS plane = PS_{UE} or$P'S_{UE}$ Mf.7 1

Unit element of IS plane = IS_{UE}=PS'_{UE}+$I'S_{UE}$ Mf.7 2

Unit element of VS plane = VS_{UE} = PS''_{UE}+ IS'_{UE}+ $V'S_{UE}$ Mf.7 3

Unit element of CS plane = CS_{UE} = PS'''_{UE}+ IS''_{UE}+ VS'_{UE}+$C'S_{UE}$ Mf.7 4

Unit element of MS plane = MS_{UE} = PS''''_{UE}+ IS'''_{UE}+ VS''_{UE}+CS'_{UE}+$M'S_{UE}$ Mf.7 5

Further, The Integrated unit element form of each space type is expanded and represented as under.

PS_{UE} = $P'S_{UE}$ + $'IS_{UE}$ + $''VS_{UE}$ + $'''CS_{UE}$ + $''''MS_{UE}$ Mf.7 6

IS_{UE} = PS'_{UE} + $I'S_{UE}$ + $'VS_{UE}$ + $''CS_{UE}$ + $'''MS_{UE}$ Mf.7 7

$$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + 'CS_{UE} + ''MS_{UE} \quad \text{Mf.7 8}$$

$$CS_{UE} = PS'''_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} + 'MS_{UE} \quad \text{Mf.7 9}$$

$$MS_{UE} = PS''''_{UE} + IS'''_{UE} + VS''_{UE} + CS'_{UE} + M'S_{UE} \quad \text{Mf.7 10}$$

Now, to define the type of space, first I identify fundamental properties like energy and mass of 'pure space unit element (PS_{UE})' then derive identities of properties like energy and mass of rest of 'space type elements'. The Energy of the PS_{UE} is ePS_{UE} and dimension of the PS_{UE} is $PS_{UE\ (t,\ x,\ y,\ z)}$. The Energy of the PSisePSand dimension of the PS is $PS_{(t,\ x,\ y,\ z)}$. Similarly the derived identities, The Energy of the IS_{UE} is eIS_{UE} and dimension of the IS_{UE} is $IS_{UE\ (t,\ x,\ y,\ z)}$. The Energy of the ISiseIS and dimension of the IS isIS$_{(t,\ x,\ y,\ z)}$. Similarly the derived identities, The Energy of the VS_{UE} is eVS_{UE} and dimension of the VS_{UE} is $VS_{UE\ (t,\ x,\ y,\ z)}$. The Energy of the VSiseVS and dimension of the VS is $VS_{(t,\ x,\ y,\ z)}$. Similarly the derived identities, The Energy of the CS_{UE} is eCS_{UE} and dimension of the CS_{UE} is $CS_{UE\ (t,\ x,\ y,\ z)}$. The Energy of the CSiseCS and dimension of the CS is $CS_{(t,\ x,\ y,\ z)}$.

Similarly the derived identities, The Energy of the MS_{UE} iseMS$_{UE}$ and dimension of the MS_{UE} is $MS_{UE\ (t,\ x,\ y,\ z)}$. The Energy of the MSiseMSand dimension of the MS is $MS_{(t,\ x,\ y,\ z)}$. Table7 2, describes the unit element energy ePS$_{UE}$oreP'S$_{UE}$of PS transforms to ePS'$_{UE}$ inIS plane, unit element energy ePS$_{UE}$oreP'S$_{UE}$of PS transforms to ePS''$_{UE}$ inVS plane, unit element energy ePS$_{UE}$oreP'S$_{UE}$of PS transforms to ePS'''$_{UE}$ inCS plane, and unit element energy ePS$_{UE}$oreP'S$_{UE}$of PS transforms to ePS''''$_{UE}$ inMS plane. The unit element energy eI'S$_{UE}$ of IS transforms to eIS'$_{UE}$ inVS plane, unit element energy eI'S$_{UE}$ of IS transforms to eIS''$_{UE}$ inCS plane, and unit element energy eI'S$_{UE}$of IS transforms to eIS'''$_{UE}$ inMS plane. The unit element energy eV'S$_{UE}$ of VS transforms to eVS'$_{UE}$ inCS plane, and unit element energy eV'S$_{UE}$ of VS transforms to eVS''$_{UE}$ inMS plane. The unit element energy eC'S$_{UE}$ of CS transforms to eCS'$_{UE}$ inMS plane. The MS plane has unit element energyeM'SUE. From Table7 2, The Integrated unit element energy form of each space type is represented as under.

Energy of unit element of PS_{UE}=ePS$_{UE}$oreP'S$_{UE}$ Mf.7 11
Energy of unit element of IS_{UE} = eIS$_{UE}$= ePS'$_{UE}$+ eI'S$_{UE}$ $\qquad$ Mf.7 12

	Energy Transformation of PS$_{UE}$ ineach space type	Energy Transformation of IS$_{UE}$ in each space type	Energy Transformation of VS$_{UE}$ in each space type	Energy Transformation of CS$_{UE}$ ineach space type	Energy Transformation of MS$_{UE}$ in each space type
Energy of Unit element in PS	$_ePS_{UE}$or$_eP'S_{UE}$				
Energy of Unit element in IS	$_ePS'_{UE}$	$_eI'S_{UE}$			
Energy of Unit element in VS	$_ePS''_{UE}$	$_eIS'_{UE}$	$_eV'S_{UE}$		
Energy of Unit element in CS	$_ePS'''_{UE}$	$_eIS''_{UE}$	$_eVS'_{UE}$	$_eC'S_{UE}$	
Energy of Unit element in MS	$_ePS''''_{UE}$	$_eIS'''_{UE}$	$_eVS''_{UE}$	$_eCS'_{UE}$	$_eM'S_{UE}$

Table7 2:
Energy transformation for unit element

Energy of unit element of $VS_{UE} = eVS_{UE} = ePS''_{UE} + eIS'_{UE} + eV'S_{UE}$ Mf.7 13

Energy of unit element of $CS_{UE} = eCS_{UE} = ePS'''_{UE} + eIS''_{UE} + eVS'_{UE} + eC'S_{UE}$ Mf.7 14

Energy of unit element of $MS_{UE} = eMS_{UE} = ePS''''_{UE} + eIS'''_{UE} + eVS''_{UE} + eCS'_{UE} + eM'S_{UE}$ Mf.7 15

Further, The Integrated unit element energy form of each space type is expanded and represented as under.

$ePS_{UE} = eP'S_{UE} + e'IS_{UE} + e''VS_{UE} + e'''CS_{UE} + e''''MS_{UE}$ Mf.7 16

$eIS_{UE} = ePS'_{UE} + eI'S_{UE} + e'VS_{UE} + e''CS_{UE} + e'''MS_{UE}$ Mf.7 17

$eVS_{UE} = ePS''_{UE} + eIS'_{UE} + eV'S_{UE} + e'CS_{UE} + e''MS_{UE}$ Mf.7 18

$eCS_{UE} = ePS''_{UE} + eIS''_{UE} + eVS'_{UE} + eC'S_{UE} + e'MS_{UE}$ Mf.7 19

$eMS_{UE} = ePS''''_{UE} + eIS'''_{UE} + eVS''_{UE} + eCS'_{UE} + eM'S_{UE}$ Mf.7 20

Next, the mass of the PS_{UE} is mPS_{UE} and dimension of the PS_{UE} is $PS_{UE\ (t, x, y, z)}$. The mass of the PSis mPS and dimension of the PS is $PS_{(t, x, y, z)}$. Similarly the derived identities, the mass of the IS_{UE} is mIS_{UE} and dimension of the IS_{UE} is $IS_{UE\ (t, x, y, z)}$. The mass of the ISis mIS and dimension of the IS is $IS_{(t, x, y, z)}$. Table7 2, describes the unit element energy ePS_{UE} or $eP'S_{UE}$ of PS transforms to ePS_{UE} in IS plane, unit element energy ePS_{UE} or $eP'S_{UE}$ of PS transforms to ePS''_{UE} in VS plane, unit element energy ePS_{UE} or $eP'S_{UE}$ of PS transforms to ePS''_{UE} in CS plane, and unit element energy ePS_{UE} or $eP'S_{UE}$ of PS transforms to ePS''''_{UE} in MS plane. The unit element energy $eI'S_{UE}$ of IS transforms to eIS'_{UE} in VS plane, unit element energy $eI'S_{UE}$ of IS transforms to eIS''_{UE} in CS plane, and unit element energy $eI'S_{UE}$ of IS transforms to eIS'''_{UE} in MS plane. The unit element energy $eV'S_{UE}$ of VS transforms to eVS'_{UE} in CS plane, and unit element energy $eV'S_{UE}$ of VS transforms to eVS''_{UE} in MS plane. The unit element energy $eC'S_{UE}$ of CS transforms to eCS'_{UE} in MS plane. The MS plane has unit element energy $eM'S_{UE}$. From Table7 3, The Integrated unit element mass form of each space type is represented as under.

	Mass Transformation of PS_{UE} in each space type	Mass Transformation of IS_{UE} in each space type	Mass Transformation of VS_{UE} in each space type	Mass Transformation of CS_{UE} in each space type	Mass Transformation of MS_{UE} in each space type
Mass of Unit element in PS	mPS_{UE} or $mP'S_{UE}$				
Mass of Unit element in IS	mPS'_{UE}	$mI'S_{UE}$			
Mass of Unit element in VS	mPS''_{UE}	mIS'_{UE}	$mV'S_{UE}$		
Mass of Unit element in CS	mPS'''_{UE}	mIS''_{UE}	mVS'_{UE}	$mC'S_{UE}$	
Mass of Unit element in MS	mPS''''_{UE}	mIS'''_{UE}	mVS''_{UE}	mCS'_{UE}	$mM'S_{UE}$

Table7 3:
Mass transformation for unit element

Mass of unit element of $PS_{UE} = {}_mPS_{UE}$ or ${}_mP'S_{UE}$

<div align="right">Mf.7 21</div>

Mass of unit element of $IS_{UE} = {}_mIS_{UE} = {}_mPS'_{UE} + {}_mI'S_{UE}$

<div align="right">Mf.7 22</div>

Mass of unit element of $VS_{UE} = {}_mVS_{UE} = {}_mPS''_{UE} + {}_mIS'_{UE} + {}_mV'S_{UE}$

<div align="right">Mf.7 23</div>

Mass of unit element of $CS_{UE} = {}_mCS_{UE} = {}_mPS'''_{UE} + {}_mIS''_{UE} + {}_mVS'_{UE} + {}_mC'S_{UE}$

<div align="right">Mf.7 24</div>

Mass of unit element of ${}_MS_{UE} = {}_mMS_{UE} = {}_mPS''''_{UE} + {}_mIS'''_{UE} + {}_mVS''_{UE} + {}_mCS'_{UE} + {}_mM'S_{UE}$

<div align="right">Mf.7 25</div>

Further, The Integrated unit element mass form of each space type is expanded and represented as under.

$${}_mPS_{UE} = {}_mP'S_{UE} + {}_m'IS_{UE} + {}_m''VS_{UE} + {}_m'''CS_{UE} + {}_m''''MS_{UE}$$

<div align="right">Mf.7 26</div>

$${}_mIS_{UE} = {}_mPS'_{UE} + {}_mI'S_{UE} + {}_m'VS_{UE} + {}_m''CS_{UE} + {}_{m'}''MS_{UE}$$

<div align="right">Mf.7 27</div>

$${}_mVS_{UE} = {}_mPS''_{UE} + {}_mIS'_{UE} + {}_mV'S_{UE} + {}_m'CS_{UE} + {}_m''MS_{UE}$$

<div align="right">Mf.7 28</div>

$${}_mCS_{UE} = {}_mPS'''_{UE} + {}_mIS'_{'UE} + {}_mVS_{'UE} + {}_mC'S_{UE} + {}_m'MS_{UE}$$

<div align="right">Mf.7 29</div>

$${}_mMS_{UE} = {}_mPS''''_{UE} + {}_mIS'''_{UE} + {}_mVS''_{UE} + {}_mCS'_{UE} + {}_mM'S_{UE}$$

<div align="right">Mf.7 30</div>

Here, in this section, I defined P space with reference to Dimension P(X, Y, Z, T) and with reference to $Q_{(X, Y, Z, T)}$. And then advance defined Dimension $P_{(X, Y, Z, T)} - Q_{(X, Y, Z, T)}$. Next, I continue for much advance define the type of space.

7.3 Definition of P space

Here, I define the P space by using above derived advanceddimensionand fundamental properties like 'energy and mass' of unit elements, which are presented inFigure 7 1, Table 7 1, Table 7 2, and Table 7 3. So, the Pure space (PS) is defined as the "PSis the volume of dimension $PS_{(t, x, y, z)}$ having total energy ePS, and having total mass mPS,and having unit element (PS_{UE}) with dimension of $PS_{UE\ (t, x, y, z)}$, where '$ePS_{UE}=mPS_{UE}$' ".

7.4 Definition of I space

Here, I define the I space by using above derived advanceddimensionand fundamental propertieslike 'energy and mass' of unit elements, which are presented inFigure 7 1, Table 7 1, Table 7 2, and Table 7 3. The Invisible space (IS) is defined as the "ISis the volume of dimension $IS_{(t, x, y, z)}$ having total energy eIS, and having total mass mIS,and having unit element (IS_{UE}) with dimension of $IS_{UE\ (t, x, y, z)}$, where '$IS_{UE} = PS'_{UE} + I'S_{UE}$', and '$eIS_{UE} = ePS'_{UE} + eI'S_{UE}$',and '$mIS_{UE} = mPS'_{UE} + mI'S_{UE}$' ".

7.5 Definition of V space

Here, I define the V space by using above derived advanced dimensionand fundamental propertieslike 'energy and mass' of unit elements, which are presented inFigure 7 1, Table 7 1, Table 7 2, and Table 7 3. The Vibrating space (VS) is defined as the "VSis the volume of dimension $VS_{(t, x, y, z)}$ having total energy eVS, and having total mass mVS,and having unit element (VS_{UE}) with dimension of $VS_{UE\ (t, x, y, z)}$, where'$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + 'CS_{UE} + ''MS_{UE}$', and'$eVS_{UE} = ePS''_{UE} + eIS'_{UE} + eV'S_{UE} + e'CS_{UE} + e''MS_{UE}$', and '$mVS_{UE} = mPS''_{UE} + mIS'_{UE} + mV'S_{UE} + m'CS_{UE} + m''MS_{UE}$' ".

7.6 Definition of C space

Here, I define the C space by using above derived advanced dimensionand fundamental propertieslike 'energy and mass' of unit elements, which are presented inFigure 7 1, Table 7 1, Table 7 2, and Table 7 3. The Charged space (CS) is defined as the "CSis the volume of dimension $CS_{(t, x, y, z)}$ having total energy eCS, and having total mass mCS,and having unit element (CS_{UE}) with dimension of $CS_{UE\ (t, x, y, z)}$, where'$CS_{UE} = PS'''_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} + 'MS_{UE}$', and'$eCS_{UE} = ePS'''_{UE} + eIS''_{UE} + eVS'_{UE} + eC'S_{UE} + e'MS_{UE}$', and '$mCS_{UE} = mPS'''_{UE} + mIS''_{UE} + mVS'_{UE} + mC'S_{UE} + m'MS_{UE}$' ".

7.7 Definition of M space

Here, I define the M space by using above derived advanced dimensionand fundamental propertieslike 'energy and mass' of unit elements, which are presented inFigure 7 1, Table 7 1, Table 7 2, and Table 7 3. The Matter space (MS) is defined as the "MSis the volume of dimension $MS_{(t, x, y, z)}$ having total energy eMS, and having total mass mMS,and

	Transformation of PS_{UE} ineach space type	Transformation of IS_{UE} ineach space type	Transformation of VS_{UE} ineach space type	Transformation of CS_{UE} ineach space type	Transformation of MS_{UE} ineach space type
Unit element in PS	PS_{UE} or$P'S_{UE}$	$'IS_{UE}$	$''VS_{UE}$	$'''CS_{UE}$	$''''MS_{UE}$
Unit element in IS	PS'_{UE}	$I'S_{UE}$	$'VS_{UE}$	$''CS_{UE}$	$'''MS_{UE}$
Unit element in VS	PS''_{UE}	IS'_{UE}	$V'S_{UE}$	$'CS_{UE}$	$''MS_{UE}$
Unit element in CS	PS'''_{UE}	IS''_{UE}	VS'_{UE}	$C'S_{UE}$	$'MS_{UE}$
Unit element in MS	PS''''_{UE}	IS'''_{UE}	VS''_{UE}	CS'_{UE}	$M'S_{UE}$

Table 8 1:
Space unit element transformation

having unit element (MS_{UE}) with dimension of $MSUE_{(t, x, y, z)}$, where 'MS_{UE} = PS''''_{UE}+ IS'''_{UE}+ VS''_{UE}+CS'_{UE} +$M'S_{UE}$', and 'eMS_{UE} = ePS''''_{UE}+ eIS'''_{UE}+ eVS''_{UE}+eCS'_{UE}+$eM'S_{UE}$', and 'mMS_{UE} = mPS''''_{UE}+ mIS'''_{UE}+ mVS''_{UE}+mCS'_{UE}+$mM'S_{UE}$' ".

8   Transformation of the Space

There are four types of space, and they are P space, I space, V space, C space. Here, I space, V space, C space are transformed forms of P space. TheTable 8 1, describes transformed stats, of P space unit element (PS_{UE}), I space unit element (IS_{UE}), V space unit element (VS_{UE}), C space unit element (CS_{UE}) in different type of space.

From Table 8 1, P space unit element (PS_{UE}), I space unit element (IS_{UE}), V space unit element (VS_{UE}), C space unit element (CS_{UE}) are constitutedas under.

$$PS_{UE} = P'S_{UE} + \,'IS_{UE} + \,''VS_{UE} + \,'''CS_{UE} \qquad \text{Mf.8 1}$$

$$IS_{UE} = PS'_{UE} + I'S_{UE} + \,'VS_{UE} + \,''CS_{UE} \qquad \text{Mf.8 2}$$

$$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + \,'CS_{UE} \qquad \text{Mf.8 3}$$

$$CS_{UE} = PS'''_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} \qquad \text{Mf.8 4}$$

Figure 8 1, describes basic schematicmodel for transformation of P space unit element (PS_{UE}), I space unit element (IS_{UE}), V space unit element (VS_{UE}), and C space unit element (CS_{UE}). In Figure 8 1andTable 8 1, they demonstrate, from top to bottom:
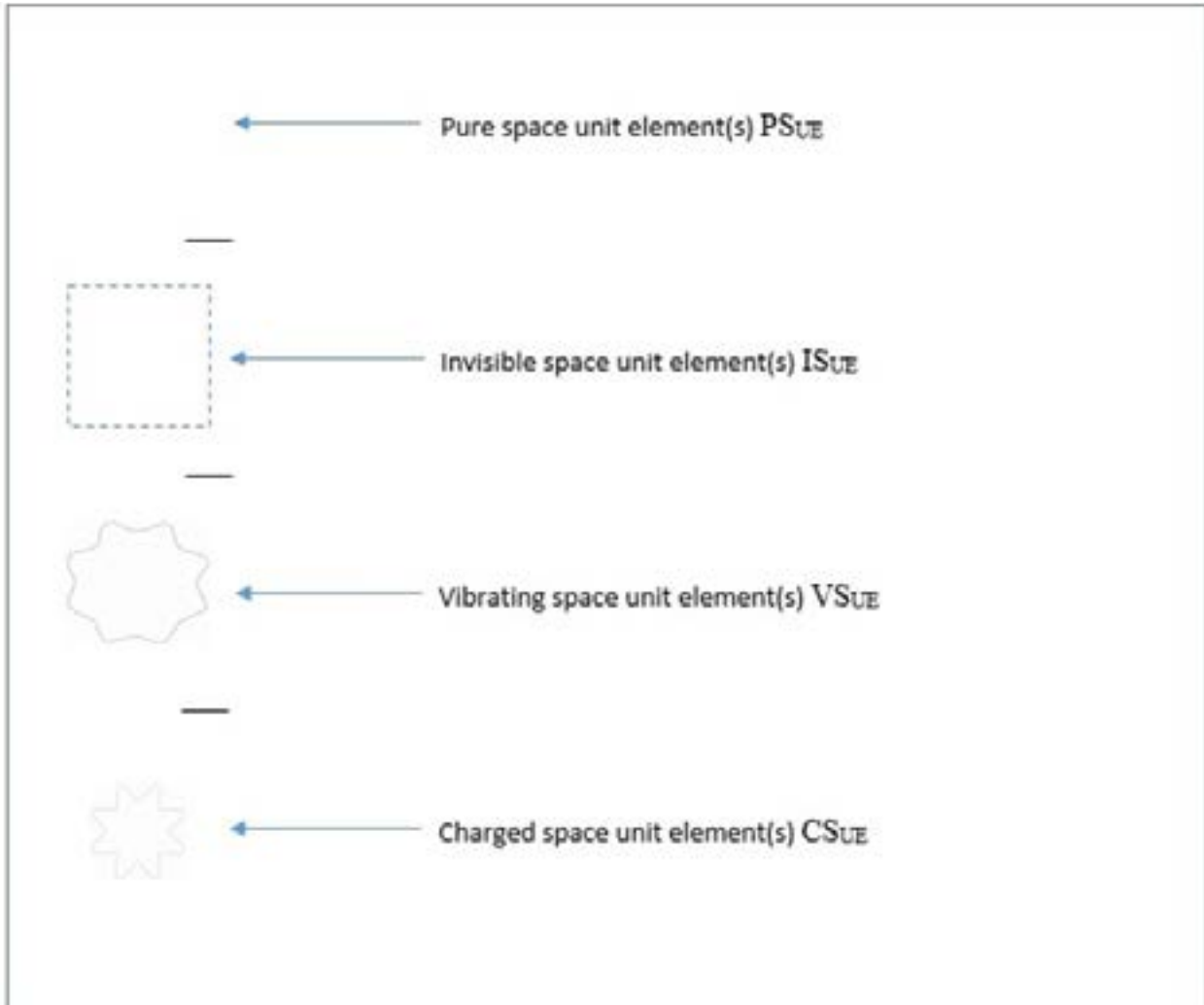-   P space unit element/elements (PS_{UE})

Figure 8 1:
Space unit element(s) transformation

transform/convert to I space unit element/elements (IS_{UE}).

- I space unit element/elements (IS_{UE}) transform/convert to V space unit element/elements (VS_{UE}).

- V space unit element/elements (VS_{UE}) transform/convert to C space unit element/elements (CS_{UE}).

And,

- As, PS_{UE} transforms/converts to IS_{UE}, the PS transforms/converts to IS.

- As, IS_{UE} transforms/converts to VS_{UE}, the IS transforms/converts to VS.

- As, VS_{UE} transforms/converts to CS_{UE}, the VS transforms/converts to CS.

InFigure 8 1 and Table 8 1, they demonstrate, from bottom to top:

- C space unit element/elements (CS_{UE}) transform/convert to V space unit element/elements (VS_{UE}).

- V space unit element/elements (VS_{UE}) transform/convert to I space unit element/elements (IS_{UE}).

- I space unit element/elements (IS_{UE}) transform/convert to P space unit element/elements (PS_{UE}).

And,

- As, CS_{UE} transforms/converts to VS_{UE}, the CS transforms/converts to VS.

- As, VS_{UE} transforms/converts to IS_{UE}, the VS transforms/converts to IS.

- As, IS_{UE} transforms/converts to PS_{UE}, the IS transforms/converts to PS.

As the space unit element(s) transformation demonstrated here inFigure 8 1, the result is described inFigure 6 1 and in Figure 7 1.From $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$, It shows P space transforms to I space, I space transforms to V space, V space transforms to C space. And the result is "Space Transformation Law (First Law)"as described in Figure 10 1and in Figure 10 2. As the space element(s) transformation demonstrated here inFigure 8 1, the result is described in Figure 6 1 and in Figure 7 1. From $Q_{(X, Y, Z, T)}$ to $P_{(X, Y, Z, T)}$,It shows C space transforms to V space, V space transforms to I space, I space transforms to P space. And the result is "Space Transformation Law (First Law)" as described in Figure 10 1 and in Figure 10 2.

9 Transformationof Space and Matter

There are four types of space, and they are P space, I space, V space, C space and fifth type is matter space which is called M space. Here, I space, V space, C space, M space are transformed forms of P space.Table 9 1, describes transformed stats, of P space unit element (PS_{UE}), I space unit element (IS_{UE}), V space unit element (VS_{UE}), C space unit element (CS_{UE}), M space unit element (MS_{UE})in different type of space. From Table 9 1, P space unit element (PSUE), I space unit element (IS_{UE}), V space unit element (VS_{UE}), C space unit element (CS_{UE}), M space unit element (MS_{UE}) are constitutedas under.

$$PS_{UE} = P'S_{UE} + {}'IS_{UE} + {}''VS_{UE} + {}'''CS_{UE} + {}''''MS_{UE} \qquad Mf.9\ 1$$

	Transformation of PS_{UE} ineach space type	Transformation of IS_{UE} ineach space type	Transformation of VS_{UE} ineach space type	Transformation of CS_{UE} ineach space type	Transformation of MS_{UE} ineach space type
Unit element in PS	PS_{UE} or$P'S_{UE}$	${}'IS_{UE}$	${}''VS_{UE}$	${}'''CS_{UE}$	${}''''MS_{UE}$
Unit element in IS	PS'_{UE}	$I'S_{UE}$	${}'VS_{UE}$	${}''CS_{UE}$	${}'''MS_{UE}$
Unit element in VS	PS''_{UE}	IS'_{UE}	$V'S_{UE}$	${}'CS_{UE}$	${}''MS_{UE}$
Unit element in CS	PS'''_{UE}	IS''_{UE}	VS'_{UE}	$C'S_{UE}$	${}'MS_{UE}$
Unit element in MS	PS''''_{UE}	IS'''_{UE}	VS''_{UE}	CS'_{UE}	$M'S_{UE}$

Table9 1:
Space-matter unit element transformation

$$IS_{UE} = PS'_{UE} + I'S_{UE} + 'VS_{UE} + ''CS_{UE} + '''MS_{UE} \qquad \text{Mf.9 2}$$

$$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + 'CS_{UE} + ''MS_{UE} \qquad \text{Mf.9 3}$$

$$CS_{UE} = PS'''_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} + 'MS_{UE} \qquad \text{Mf.9 4}$$

$$MS_{UE} = PS''''_{UE} + IS'''_{UE} + VS''_{UE} + CS'_{UE} + M'S_{UE} \qquad \text{Mf.9 5}$$

Figure 9 1, describes basic schematic model for transformation of P space unit element (PS_{UE}), I space unit element (IS_{UE}), V space unit element (VSUE), C space unit element (CS_{UE}), and M space unit element (MS_{UE}). In Figure 9 1andTable 9 1, they demonstrate,

from top to bottom:
- P space unit element/elements (PS_{UE}) transform/convert to I space unit element/elements (IS_{UE}).
- I space unit element/elements (IS_{UE}) transform/convert to V space unit element/elements (VS_{UE}).
- V space unit element/elements (VS_{UE}) transform/convert to C space unit element/elements (CS_{UE}).
- C space unit element/elements (CS_{UE}) transform/convert to matter unit element/elements (fundamental matter particle).
And,
- As, PS_{UE} transforms/converts to IS_{UE}, the PS transforms/converts to IS.
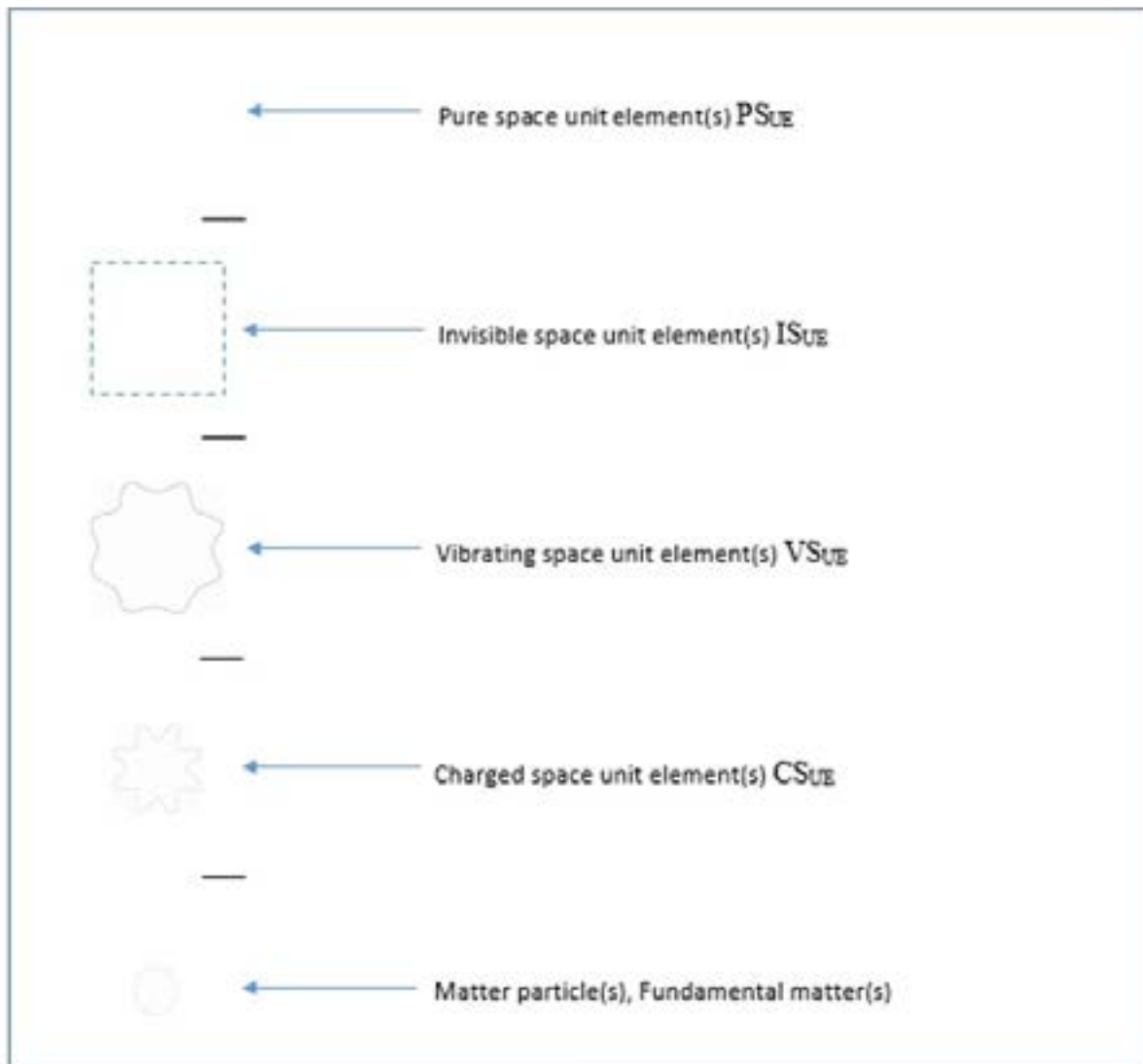- As, IS_{UE} transform/convert to VS_{UE}, the IS transform/convert to VS.

Pure space unit element(s) PS$_{UE}$

Invisible space unit element(s) IS$_{UE}$

Vibrating space unit element(s) VS$_{UE}$

Charged space unit element(s) CS$_{UE}$

Matter particle(s), Fundamental matter(s)

Figure 9 1:
Space element to Matter element transformation and vs.

- As, VS_{UE} transform/convert to CS_{UE}, the VS transform/convert to CS.
- As, CS_{UE} transform/convert to MS_{UE}, the CS transform/convert to MS.

InFigure 9 1 and Table 9 1, they demonstrate, from bottom to top:
- Matter unit element/elements (fundamental matter particle) transform/convert to C space unit element/elements (CS_{UE}).
- C space unit element/elements (CS_{UE}) transform/convert to V space unit element/elements (VS_{UE}).
- V space unit element/elements (VS_{UE}) transform/convert to I space unit element/elements (IS_{UE}).
- I space unit element/elements (IS) transform/convert to P space unit element/elements (PS_{UE}).

And,
- As, MS_{UE} transforms/converts to CS_{UE}, the MS transforms/converts to CS.
- As, CS_{UE} transforms/converts to VS_{UE}, the

CS transforms/converts to VS.
- As, VS_{UE} transforms/converts to IS_{UE}, the VS transforms/converts to IS.
- As, IS_{UE} transforms/converts to PS_{UE}, the IS transforms/converts to PS.

As the space element(s)-matter element(s) transformation demonstrated here inFigure 9 1, the result described inFigure 6 1 and in Figure 7 1. From $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$, It shows P space transforms to I space, I space transforms to V space, V space transforms to C space and C space transforms to space-time with matter (M space). And the result is "Space-Matter Transformation Law (Second Law)" as described in Figure 10 1 and in Figure 10 2.

As the space element(s)-matter element(s) transformation demonstrated here inFigure 9 1, the result described inFigure 6 1 and in Figure 7 1.From $Q_{(X, Y, Z, T)}$ to $P_{(X, Y, Z, T)}$,It shows 'space-time with matter' or 'M space' transforms to C space, C space transforms to V space, V space transforms to I space, I space transforms to P space. And
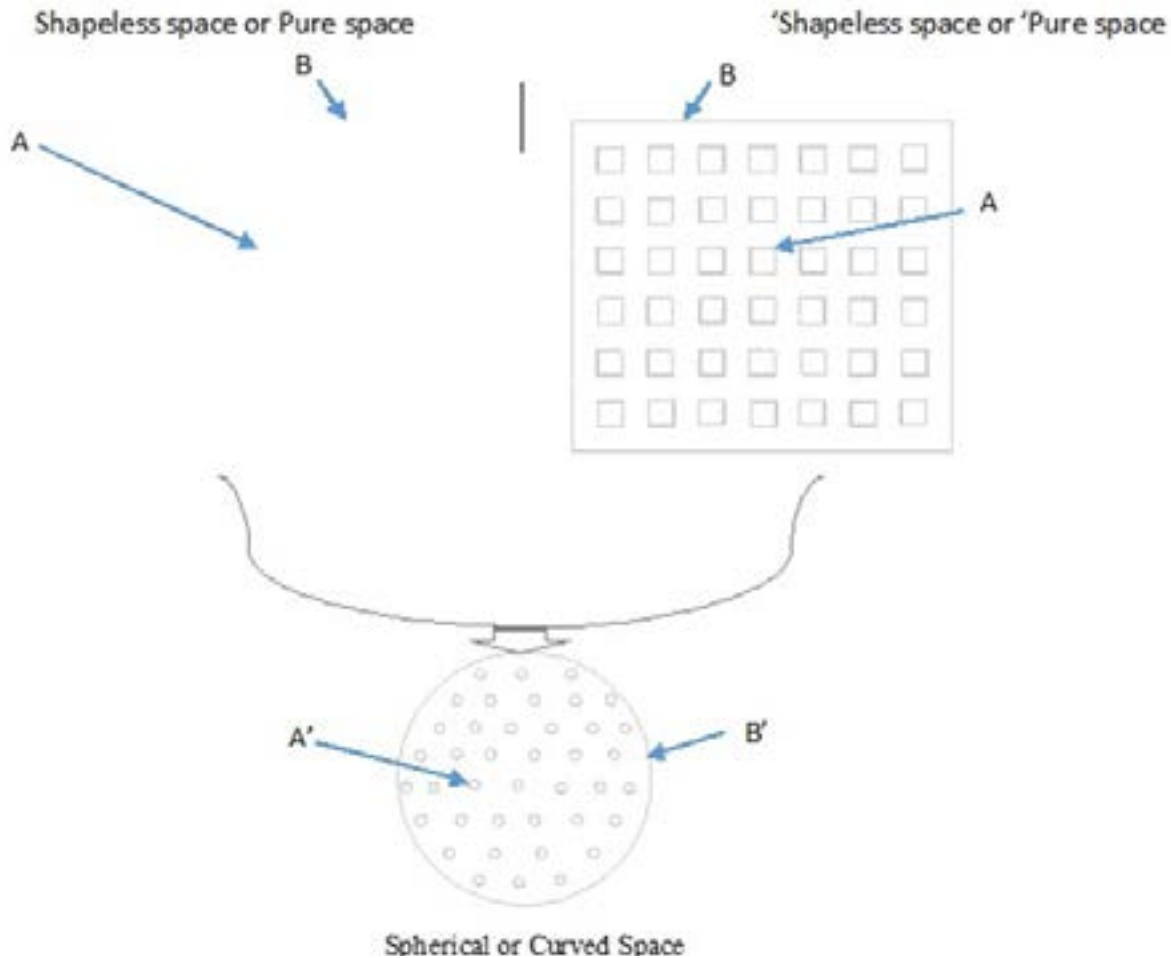

Figure 10 1:
Space transformation law

the result is "Space-Matter Transformation Law (Second Law)" as described in Figure 10 1 and in Figure 10 2.

10   Space Transformation Law (First Law)

Figure 10 1demonstrates nature of the First Law. In Figure 10 1, A represents PS_{UE}, A' represents CS_{UE}, B represents Pure space, B' represents Charged space.

First Law is derived from space transformation methods as demonstrated and described in above "Transformation of the Space"and Figure 10 1. First Law is mentioned as under in different ways. First Law: "When PS_{UE} transforms to CS_{UE} Then space transforms from shapeless space to spherical shape space".

<div align="center">Or</div>

"When PS_{UE} transforms to CS_{UE} Then space bends to spherical".

<div align="center">Or</div>

"When PS_{UE} transforms to CS_{UE} Then space transforms from shapeless space to curved shape space".

<div align="center">Or</div>

"When PS_{UE} transforms to CS_{UE} Then space bends to curve".

<div align="center">Or</div>

"When PS_{UE} transforms to CS_{UE} Then space transforms from shapeless P space to spherical C space".

<div align="center">Or</div>

"When PS_{UE} transform to CS_{UE} Then space transform from shapeless P space to curved C space". It describes more clearly about "space transformation law". When space elementtransform from A to A', then space transform from B to B'. (Where, A is PS_{UE}(s), A' is CS_{UE}(s), B is Pure space, B' is Charged space).

The Figure 10 1, can represent alternate way as describes inFigure 10 2, with same meaning about "space transformation law".

It also describes when Space element(s) transform from A to A', then space transforms from B to B'. (Where, A is PS_{UE}(s), A' is CS_{UE}(s), B is Pure space, B' is Charged space). So, with above simple explanation, the first law demonstrates "when A transforms to A' then B transforms to B' ". In this law two events A to A' and B to B' are happening jointly, and both events depend on each other.
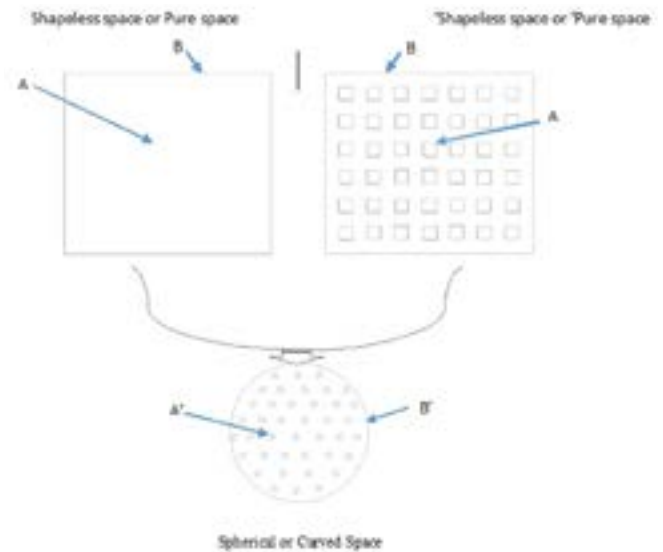

Figure 10 2:
Alternate way, Space transformation law

11   Space-Matter Transformation Law (Second Law)

Second Law is derived from space-matter transformation methods as demonstrated and described in above"Space-Matter Transformation Law (Second Law)" and Figure 10 1 and Figure 10 2. Second Law: "Space converts/transforms to Matter and Matter converts/transforms to Space". It is the law which explains the existence of all the matter in the universe [44]. Each and every matter object in the universe like quantum particles, elementary matter particles, subatomic, atoms, molecules, moons, planets, stars are the transformed forms of the space. In our daily life what we can see with our open eyes, like food, water, house, paper, pen, book, computer, mobile, human, animal, bicycle, car, train, road, aero plane, land, rock, mountain, water, ocean, fire, iron, gold, earth, moon, planets, sun, stars all these made of/made from space. All these are transformed forms of the space.

12   GODEYE MODEL

Here, in this section I recalled GODEYE definition with reference to Dimension $P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$. And then define GODEYE Model, as under.

12.1   Definition of GODEYE

Definition of GODEYE "At the same moment of the time which has vision perpendicular outward and has vision perpendicular inward on unit surface of each and every unit element that is called GODEYE". Each and every object(s), each and every

<div align="center">224</div>

element(s) which exist between Dimension $P_{(X, Y, Z, T)}$ and Dimension $Q_{(X, Y, Z, T)}$ are under continuous GODEYE vision for all the time. Each and every object(s), each and every element(s) which exist in P space, I space, V space, C space, and M space are under continuous GODEYE vision for all the time. Each and every PS_{UE}, IS_{UE}, VS_{UE} CS_{UE}, and MS_{UE} element(s) which exist in P space, I space, V space, C space, and M space are under continuous GODEYE vision for all the time.

12.2 GODEYE Model

In this section we learn about GODEYE working by applying to any object. When we apply GODEYE to any object, we can say the object itself has perpendicular outward and perpendicular inward vision and the each unit element of the main object has perpendicular outward and perpendicular inward vision at the same moment of the time. Here perpendicular outward vision and perpendicular inward vision, we can say the "Vision" is the "Act". Now we apply GODEYE definition in general form with Act. Then it is called GODEYE Model Act. This Act can be Vision, can be Dimension, can be Force, can be Flow, can be Transformation, can be Presentation, can be Effect and Act itself. When Act is the Act, it is called GODEYE Model Act(GE Model Act).

When Act is the Vision, it is called GODEYE Model Vision(GE Model Vision).

When Act is the Dimension, it is called GODEYE Model Dimension (GE Model Dimension).

When Act is the Force, it is called GODEYE Model Force(GE Model Force).

When Act is the Flow, it is called GODEYE Model Flow(GE Model Flow).

When Act is the Transformation, it is called GODEYE Model Transformation(GE Model Transformation).

When Act is the Effect, it is called GODEYE Model Effect(GE Model Effect).

When Act is the Presentation, it is called GODEYE Model Presentation (GE Model Presentation).

When Act is the Geometric Presentation, it is called GODEYE Model Geometric Presentation (GE Model Geometric Presentation).

When Act is the Geometric structural Presentation, it is called GODEYE Model Geometric structural Presentation (GE Model Geometric structural Presentation).

When we apply GODEYE Act to any object, it is called GODEYE Model Act on that particular object.

GODEYE Model Act defined as "the object itself has perpendicular outward and perpendicular inward vision and the each unit element of the main object has perpendicular outward and perpendicular inward vision at the same moment of the time".

So, when we apply GODEYE definition for any Act to any object it's called GODEYE Model Act on that object. Or can say the object is under GODEYE Model Act (GE Model Act).

Let us continue for Vision Act on the object and we can say the object has GODEYE Model Vision (GE Model Vision).

InFigure 12 1, we are applying GODEYE Model Vision to sphere object Z.
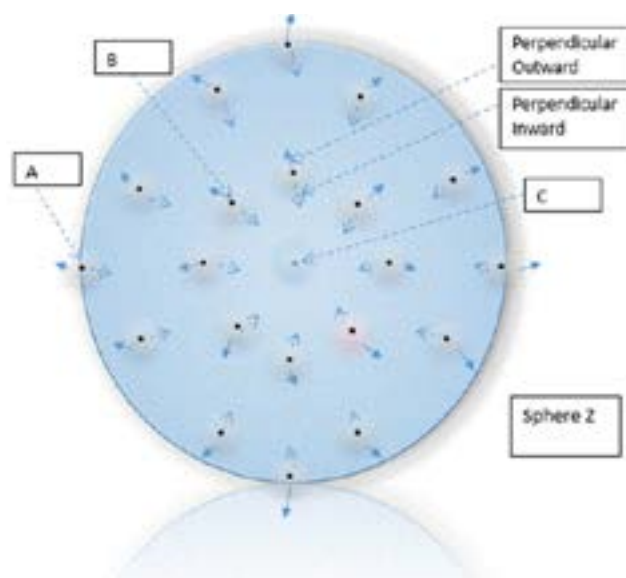
**Figure 12 1:
GODEYE**

Working of the GODEYE Model Vision for sphere Z is described as under.

Let us apply GODEYE Vision model to above sphere object Z.

Point A: is the point object on most outer spherical surface of sphere object Z.

Point B: is the point object on inner spherical circumference of sphere object Z.

Point C: is the central point object of sphere object Z.

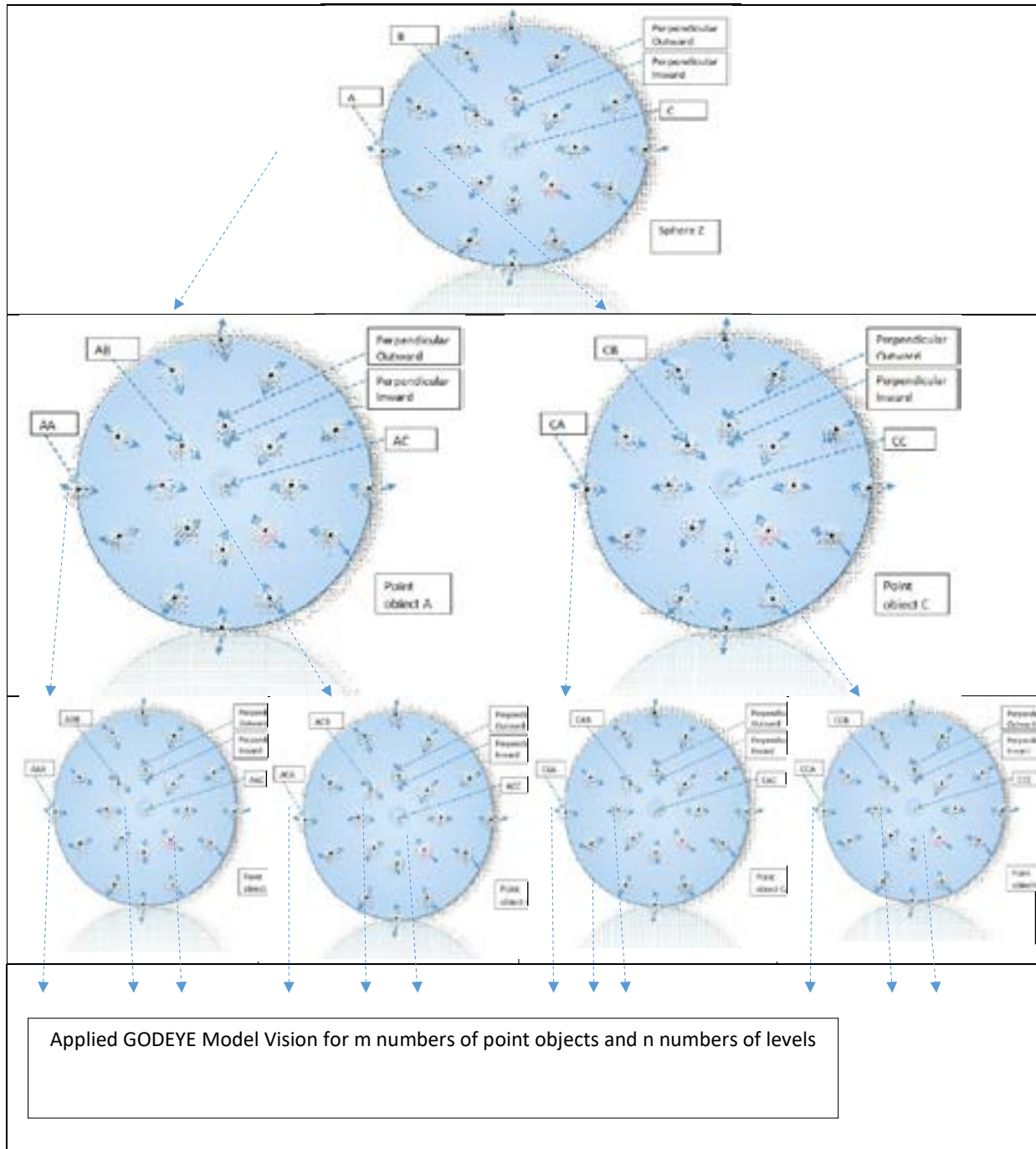**Most outer spherical circumference of sphere object Z,**

Point object A is on outer spherical circumference of sphere object Z. With applied GODEYE Model Vision on point object A. It has perpendicular vi-

sion to outward and perpendicular vision inward to the center of the sphere object Z as represented inFigure 12 1. Like this each and every point object on most outer spherical circumference has perpendicular vision outward and perpendicular vision toward the center of the sphere.

All inner spherical circumferences of sphere object Z,
InFigure 12 1,we can see many more points toward the center of the sphere object Z. All those point objects lie on inner spherical circumferences. All those spherical circumferences represent inner sphere objects with the same center point. Point object B is on those inner spherical circumferences of sphere object Z. With applied GODEYE Model Vision on point object B. It has perpendicular vision to outward and perpendicular vision to the center of the sphere object Z as represented inFigure 12 1. Like this with applied GODEYE Model Vision to all those point objects on inner spherical circumferences of those inner sphere objects

Figure 12 2:
GODEYE Model

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have perpendicular vision outward and perpendicular vision to the center of the sphere object Z.

Center of sphere object Z,

InFigure 12 1the point object C is the center point object of sphere object Z. With applied GODEYE Model Vision it has perpendicular vision outward and perpendicular vision inward. For more details, The GOD EYE Model Vision applied to Point object C as represented and described inFigure 12 2. Like this with applied GODEYE Model Vision on sphere object Z, all the point objects on most outer spherical surface to all inner spherical surfaces have perpendicular vision inward and perpendicular outward at the same moment of the time. By Integration of the above processes, we can say the sphere as the individual object has the spherical vision perpendicular outward from the surface and perpendicular inward from the spherical surface.

AND

By Integration of the above processes, we can say all the inner spherical circumferences including central spherical circumference's spherical bodies have spherical vision perpendicular outward from their surfaces and perpendicular inward from their surfaces. Next, InFigure 12 2, we continue applying GODEYE Model Vision to point element objects on outer spherical circumference, on inner spherical circumference and center point element of object of sphere object Z. Working of the GODEYE Model Vision for sphere Z and for point element objects on all spherical circumferences and for central point element object of the sphere Z are described as under.

Level 1: represents spherical object Z.

Level 2: represents point object A on most outer spherical surface of sphere object Z.

Level 2: represents point object C at the center of sphere object Z.

Level 3: represents point object AA on most outer spherical surface of point object A.

Level 3: represents point object AC at the center of point object A.

Level 3: represents point object CA on most outer spherical surface of point object C.

Level 3: represents point object CC at the center of point object C.

Point object A, point object B, point object C, are point objects of sphere Z.

Point object AA, point object AB, point object AC are point objects of point object A.

Point object CA, point object CB, point object CC are point objects of point object C.

Point object AAA, point object AAB, point object AAC are point objects of point object AA. Point object ACA, point object ACB, point object ACC are point objects of point object AC. Point object CAA, point object CAB, point object CAC are point objects of point object CA. Point object CCA, point object CCB, point object CCC are point objects of point object CC.

Level 1: represents,

Sphere object Z and it has vision following GODEYE Model Vision as described inFigure 12 1. Point object A, point object B, point object C, are point objects of sphere Z.

Level 2: represents,

Point object A on most outer spherical surface of sphere Z and Point object A has vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z). Point object AA, point object AB, point object AC are point objects of point object A.

Level 2: represents,

Point object C at the center object of sphere Z and Point object C has vision following GODEYE Model Vision as described inFigure 121(same as sphere Z). Point object CA, point object CB, point object CC are point objects of point object C.

Level 3: represents,

Point object AA on most outer spherical surface of point object A and Point object AA has vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z). Point object AAA, point object AAB, point object AAC are point objects of point object AA.

Level 3: represents,

Point object AC at the center object of point object A and Point object AC has vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z). Point object ACA, point object ACB, point object ACC are point objects of point object AC.

Level 3: represents,

Point object CA on most outer spherical surface of point object C and Point object CA has vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z).

Point object CAA, point object CAB, point object CAC are point objects of point object CA.

Level 3: represents,

Point object CC at the center object of point object C and Point object CC has vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z). Point object CCA, point object CCB, point object CCC are point objects of point object CC. Likewise all point object B, point object AB, point object CB, Point object AAA, point object AAB, point object AAC, Point object ACA, point object ACB, point object ACC, Point object CAA, point object CAB, point object CAC, Point object CCA, point object CCB, point object CCC have vision following GODEYE Model Vision as described inFigure 12 1(same as sphere Z).

Level n: represents n numbers of level,

Point objects m are m numbers of point objects of n numbers of level. And all point objects m have GODEYE Model Vision as described inFigure 12 1(same as sphere Z). Level 1, level 2, level 3…Level n are acting at the same moment of time. So, we find sphere Z and all the point elements of sphere Z have spherical vision perpendicular outward and spherical vision perpendicular inward at the same moment of time. There is nothing left without vision as the act is in the same moment of time.
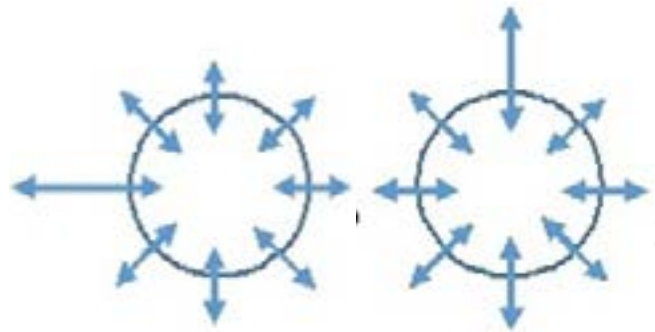
12.3 GODEYE Mathematical operator and Schematic SYMBOL

After defined various GODEYE Models for various acts it becomes necessary to define various "Mathematical operator symbols or Schematic symbols" for GODEYE and GODEYE model. These GODEYE and GODEYE model symbols to use for the presentation of various mathematical model and schematic model. Figure 12 3 represents GODEYE operator symbol for GODEYE itself.

Figure 12 3:
GODEYE operator symbol

Figure 12 4 represents Mathematical operator symbol for GODEYE model ACT for net two-way "ACT". The symbols in Figure 12 4 represent "GODEYE model two-way ACT".


Fig 12-4
GODEYE model two-way Act

All symbols in Figure 12 4have the same meaning of GODEYE model net two-way ACT. Figure 12 5 represents Mathematical operator symbol for GODEYE model ACT for net one-way "ACT". The symbols in Figure 12 5 represent "GODEYE model one-way ACT". All symbols in Figure 12 5 have the same meaning of GODEYE model net one-way ACT.

13 GODEYE Model Transformation of Unit Elements

Both $P_{(X, Y, Z, T)}$ and$Q_{(X, Y, Z, T)}$ are the dimensions of space-time but both have different proper-
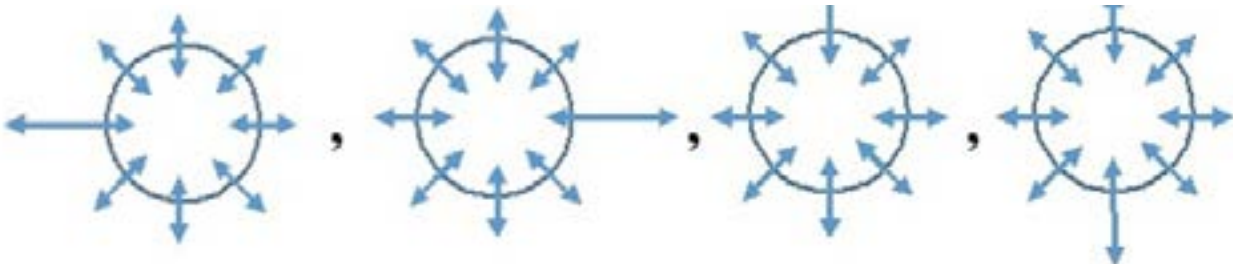
Figure 12 5:
GODEYE model one-way Act

ties of space and different properties of time. They represent two different 4D planes, these two 4D planes are opposite to each other with opposite dimensional properties to each other. The unit element in each 4D plane is identified as, PSUE is the unit element in PS plane, and ISUE is the unit element in IS plane, and VSUE is the unit element in VS plane, and CSUE is the unit element in CS plane, and MSUE is the unit element in MS plane. The unit element in each 4D plane is formulized as shown in math-schematic Figure 13 1.And, Transformation of unit elements from Table 9 1is expanded along with GODEYE symbol as shown in math-schematic Figure 13 1.

VS''_{UE} is the transformed status of $V'S_{UE}$, in MS plane.
And,
$'''CS_{UE}$ is the transformed status of $C'S_{UE}$, in PS plane.
$''CS_{UE}$ is the transformed status of $C'S_{UE}$, in IS plane.
$'CS_{UE}$ is the transformed status of $C'S_{UE}$, in VS plane.
$C'S_{UE}$ is the original status of unit element of CS plane.
CS'_{UE} is the transformed status of $C'S_{UE}$, in MS plane.
And,
$''''MS_{UE}$ is the transformed status of $M'S_{UE}$, in PS plane.
$'''MS_{UE}$ is the transformed status of $M'S_{UE}$, in IS plane.
$''MS_{UE}$ is the transformed status of $M'S_{UE}$, in VS plane.
$'MS_{UE}$ is the transformed status of $M'S_{UE}$, in CS plane.
$M'S_{UE}$ is the original status of unit element of MS plane.
'From dimension PS $_{(t, x, y, z)}$) to MS$_{(t, x, y, z)}$' or

$$PS_{UE} = P'S_{UE}$$

$$PS_{UE} = P'S_{UE} + 'IS_{UE} + ''VS_{UE} + '''CS_{UE} + ''''MS_{UE}$$

$$IS_{UE} = PS'_{UE} + I'S_{UE} + 'VS_{UE} + ''CS_{UE} + '''MS_{UE}$$

$$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + 'CS_{UE} + ''MS_{UE}$$

$$CS_{UE} = PS'''_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} + 'MS_{UE}$$

$$MS_{UE} = PS''''_{UE} + IS'''_{UE} + VS''_{UE} + CS'_{UE} + M'S_{UE}$$

Figure 13 1:
Math-Schematic of GODEYE model transformation of unit elements

Withabove basic math-schematic of unit elements,the GODEYE Model unit element transformation along with the space transformation and space-matter transformation isexplained again as under.
Where,
$P'S_{UE}$ is the original status of unit element of PS plane.
PS'_{UE} is the transformed status of $P'S_{UE}$, in IS plane.
PS''_{UE} is the transformed status of $P'S_{UE}$, in VS plane.
PS'''_{UE} is the transformed status of $P'S_{UE}$, in CS plane.
PS''''_{UE} is the transformed status of $P'S_{UE}$, in MS plane.
And,
$'IS_{UE}$ is the transformed status of $I'S_{UE}$, in PS plane.
$I'S_{UE}$ is the original status of unit element of IS plane.
IS'_{UE} is the transformed status of $I'S_{UE}$, in VS plane.
IS''_{UE} is the transformed status of $I'S_{UE}$, in CS plane.
IS'''_{UE} is the transformed status of $I'S_{UE}$, in MS plane.
And,
$''VS_{UE}$ is the transformed status of $V'S_{UE}$, in PS plane.
$'VS_{UE}$ is the transformed status of $V'S_{UE}$, in IS plane.
$V'S_{UE}$ is the original status of unit element of VS plane.
VS'_{UE} is the transformed status of $V'S_{UE}$, in CS plane.

'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the PS_{UE} orP'S_{UE} transforms to PS'$_{UE}$in IS plane following GODEYE Model Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'fromdimensionP $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the PSUE orP'SUE transforms to PS''$_{UE}$in VS plane following GODEYE Model Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'fromdimensionP $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the PSUE orP'S_{UE} transforms to PS'''$_{UE}$in CS plane following GODEYE Model Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'fromdimensionP $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the PS_{UE} orP'S_{UE} transforms to PS''''$_{UE}$ in MS plane following GODEYE Model Transformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'fromdimensionQ $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the PS''''$_{UE}$ transforms to PS'''$_{UE}$in CS plane following GODEYE Model Transformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'fromdimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the PS''''$_{UE}$ transforms to PS''$_{UE}$in VS plane fol-

lowing GODEYE Model Transformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'fromdimensionQ $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the PS''''$_{UE}$ transforms to PS'$_{UE}$in IS plane following GODEYE Model Transformation. 'From dimension MS$_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'fromdimensionQ $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the PS''''UE transforms to PS$_{UE}$ orP'S$_{UE}$ in PS plane following GODEYE Model Transformation. Likewise, 'from dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'fromdimensionP$_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or'fromdimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the transformation of

transformation happen 'from dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' through GODEYE Model transformation. Finally, GODEYE model Transformation of unit elementsissimplyandbrieflydescribedasinFigure132.

14 GODEYE Model Energy Transformation of Unit Elements

Both $P_{(X, Y, Z, T)}$ andQ$_{(X, Y, Z, T)}$ are the dimensions of space-time but both have different properties of space and different properties of time. They represent two different 4D planes, these two 4D planes are opposite to each other with
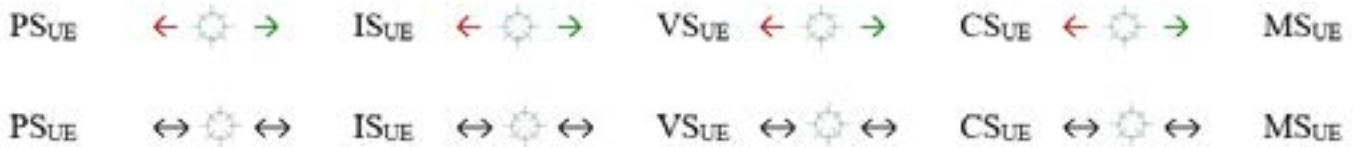

Figure 13 2:
GODEYE model transformation of unit elements

all I'S$_{UE}$,V'S$_{UE}$,C'S$_{UE}$,M'S$_{UE}$happen within all the PS plane, IS plane, VS plane, CS plane and MS plane by following GODEYE Model transformation. So, all the elements within all the PS plane, IS plane, VS plane, CS plane and MS plane are under influence of GODEYE Model transformation 'from dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$'or'fromdimensionP$_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'fromdimensionQ $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$'. Here, GODEYE operator symbol on right hand side of math-schematic Figure 13 1, It shows in the green arrow line that all the elements transformation happen 'from dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'fromdimensionP $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' through GODEYE Model transformation. It shows in the red arrow line that all the elements

opposite dimensional properties to each other. So, there is the opposite energy to each other. The energy in each 4D plane is identified as,eP-S$_{UE}$is the unit element energy in PS plane, and eIS$_{UE}$is the unit element energy in IS plane, and eVS$_{UE}$is the unit element energy in VS plane, and eCS$_{UE}$is the unit element energy in CS plane, and eMS$_{UE}$is the unit element energy in MS plane. The energy for each unit element in each 4D plane is formulized as shown in math-schematic Figure 14 1. Energy transformation of unit elements fromTable 7 2 is expanded along with GODEYE symbol as shown in math-schematic Figure 14 1. With the above basic math-schematic of unit element energy, the GODEYE Model energy transformation along with the
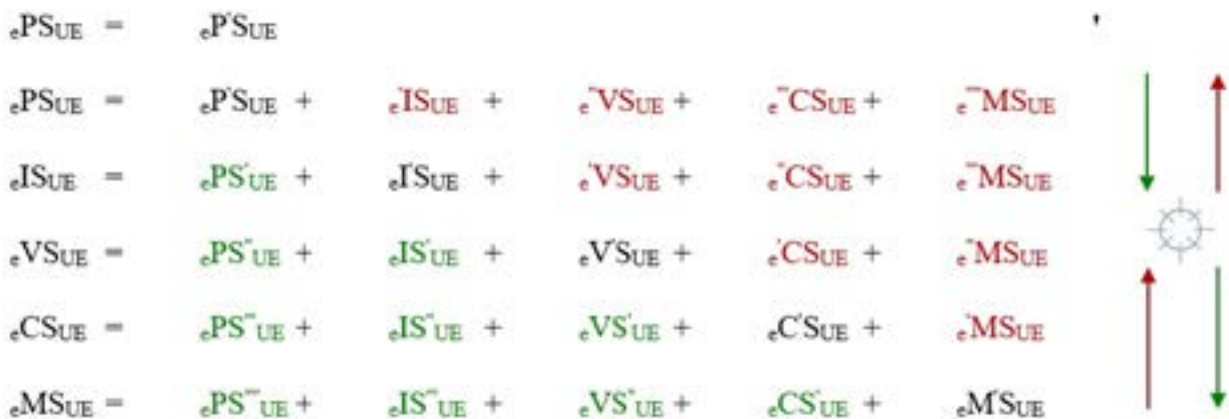

Figure 14 1:
Math-Schematic of GODEYE model energy transformation of unit elements

space transformation and space-matter transformation isexplained again as under. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'from dimension P (t, x, y, z) to Q (t, x, y, z)' the ePS$_{UE}$oreP'S$_{UE}$transforms to ePS'$_{UE}$in IS plane following GODEYE Model Energy Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the ePS$_{UE}$oreP'S$_{UE}$transforms to ePS''$_{UE}$in VS plane following GODEYE Model Energy Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the ePS$_{UE}$oreP'S$_{UE}$transforms to ePS'''$_{UE}$in CS plane following GODEYE Model EnergyTransformation. 'From dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or'from

IS plane, VS plane, CS plane and MS plane are under influence of GODEYE Model Energytransformation 'from dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$'. Here, GODEYE operator symbol on right hand side of math-schematic Figure 14 1, It shows in the green arrowline that all the unit element(s) energytransformation happen 'from dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' through GODEYE Model Energytransformation. It shows in the red arrow line that all the unit element(s) energy transformation hap-
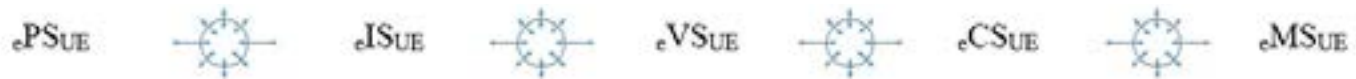

Figure 14 2:
GODEYE Model energy transformation of unit elements

dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the ePSUEoreP'S$_{UE}$transforms to ePS''''$_{UE}$ in MS plane following GODEYE Model EnergyTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the ePS''''$_{UE}$ transforms to ePS'''$_{UE}$in CS plane following GODEYE Model EnergyTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the ePS''''$_{UE}$ transforms to ePS''$_{UE}$in VS plane following GODEYE Model EnergyTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the ePS''''$_{UE}$ transforms to ePS'$_{UE}$in IS plane following GODEYE Model EnergyTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the ePS''''UE transforms to ePS$_{UE}$oreP'S$_{UE}$ in PS plane following GODEYE Model EnergyTransformation. Likewise, 'from dimension PS $_{(t, x, y, z)}$ to MS$_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS$_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the energy transformation of all eI'S$_{UE}$, eV'S$_{UE}$, eC'S$_{UE}$, eM'S$_{UE}$, happen within all the PS plane, IS plane, VS plane, CS plane and MS plane by following GODEYE Model Energytransformation. So, all the unit elements within all the PS plane,

pen 'from dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' through GODEYE Model Energy transformation. Finally, GODEYE model Energy Transformation of unit elements is simply and briefly described as in Figure 14 2.

15 GODEYE Model Mass Transformation of Unit Elements

Both P$_{(X, Y, Z, T)}$ and Q$_{(X, Y, Z, T)}$ are the dimensions of space-time but both have different properties of space and different properties of time. They represent two different 4D planes, these two 4D planes are opposite to each other with opposite dimensional properties to each other. So, there is the opposite mass to each other. The mass in each 4D plane is identifiedas, mPS$_{UE-}$is the unit element mass in PS plane, and mIS$_{UE}$ is the unit element mass in IS plane, and mVS$_{UE}$ is the unit element mass in VS plane, and mCS$_{UE}$ is the unit element mass in CS plane, and mMS$_{UE}$ is the unit element mass in MS plane. The mass for each unit element in each 4D plane is formulized as shown in math-schematic Figure 15 1. And, Mass transformation of unit elements from Table 7 3 is expanded along with GODEYE symbol as shown in math-schematic Figure 15 1.
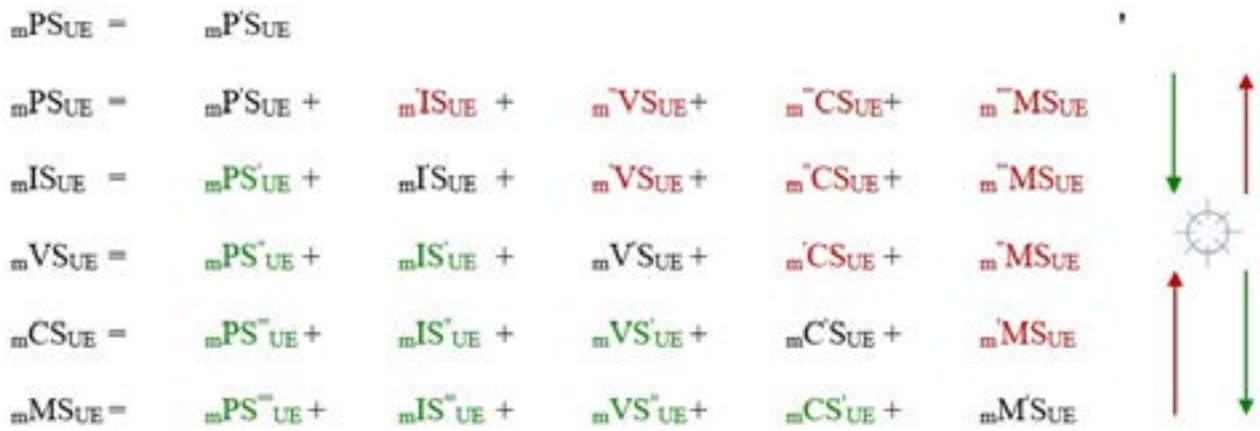
$$_mPS_{UE} = \quad _mP'S_{UE}$$

$$_mPS_{UE} = _mP'S_{UE} + _mIS_{UE} + _m{}^{\prime\prime}VS_{UE} + _m{}^{\prime\prime\prime}CS_{UE} + _m{}^{\prime\prime\prime\prime}MS_{UE}$$

$$_mIS_{UE} = _mPS'_{UE} + _mIS_{UE} + _m{}^{\prime}VS_{UE} + _m{}^{\prime\prime}CS_{UE} + _m{}^{\prime\prime\prime}MS_{UE}$$

$$_mVS_{UE} = _mPS{}^{\prime\prime}_{UE} + _mIS{}^{\prime}_{UE} + _mVS_{UE} + _m{}^{\prime}CS_{UE} + _m{}^{\prime\prime}MS_{UE}$$

$$_mCS_{UE} = _mPS{}^{\prime\prime\prime}_{UE} + _mIS{}^{\prime\prime}_{UE} + _mVS{}^{\prime}_{UE} + _mC{}^{\prime}S_{UE} + _m{}^{\prime}MS_{UE}$$

$$_mMS_{UE} = _mPS{}^{\prime\prime\prime\prime}_{UE} + _mIS{}^{\prime\prime\prime}_{UE} + _mVS{}^{\prime\prime}_{UE} + _mCS{}^{\prime}_{UE} + _mM{}^{\prime}S_{UE}$$

Figure 15 1:
Math-Schematic of GODEYE model mass transformation of unit elements

With the above basic math-schematic of unit element mass, the GODEYE Model mass transformation along with the space transformation and space-matter transformation is explained again as under. 'From dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the mPS$_{UE}$ or mP'S$_{UE}$ transforms to mPS'$_{UE}$ in IS plane following GODEYE Model Mass Transformation. 'From dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the mPS$_{UE}$ or mP'S$_{UE}$ transforms to mPS''$_{UE}$ in VS plane following GODEYE Model MassTransformation. 'From dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the mPS$_{UE}$ or mP'S$_{UE}$ transforms to mPS'''$_{UE}$ in CS plane following GODEYE Model MassTransformation. 'From dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' the mPS$_{UE}$ or mP'S$_{UE}$ transforms to mPS'''$_{UE}$ in MS plane following GODEYE Model MassTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the mPS''''$_{UE}$ transforms to mPS'''$_{UE}$ in CS plane following GODEYE Model MassTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the mPS'''$_{UE}$ transforms to mPS''$_{UE}$ in VS plane following GODEYE Model MassTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the mPS'''$_{UE}$ transforms to mPS$_{UE}$ in IS plane fol-

lowing GODEYE Model MassTransformation. 'From dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the mPS'''$_{UE}$ transforms to mPS$_{UE}$ or mP'S$_{UE}$ in PS plane following GODEYE Model MassTransformation. Likewise, 'from dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$' the mass transformation of all mI'S$_{UE}$, mV'S$_{UE}$, mC'S$_{UE}$, mM'S$_{UE}$ happen within all the PS plane, IS plane, VS plane, CS plane and MS plane by following GODEYE Model Masstransformation. So, all the unit element(s) within all the PS plane, IS plane, VS plane, CS plane and MS plane are under influence of GODEYE Model Masstransformation 'from dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' and 'from dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'From dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$'. Here, GODEYE operator symbol on right hand side of math-schematic Figure 15 1, It shows in the green arrow line that all the unit element(s) mass transformation happen 'from dimension PS $_{(t, x, y, z)}$ to MS $_{(t, x, y, z)}$' or 'from dimension P $_{(t, x, y, z)}$ to Q $_{(t, x, y, z)}$' through GODEYE Model Mass transformation. It shows in the red arrow line that all the unit element(s) mass transformation happen 'from dimension MS $_{(t, x, y, z)}$ to PS $_{(t, x, y, z)}$' or 'from dimension Q $_{(t, x, y, z)}$ to P $_{(t, x, y, z)}$'

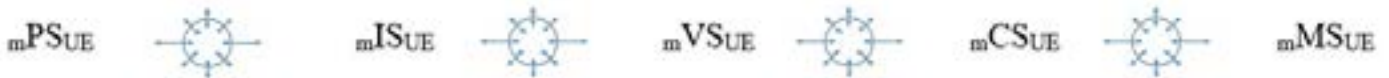$_mPS_{UE}$ — $_mIS_{UE}$ — $_mVS_{UE}$ — $_mCS_{UE}$ — $_mMS_{UE}$

Figure 15 2:
GODEYE Model mass transformation of unit elements

through GODEYE Model Mass transformation. Finally, GODEYE model Mass Transformation of unit elements is simply and briefly described as in Figure 15 2.

16   GODEYE Model Energy-Mass Transformation of Unit Elements

Each unit element in each 4D plane have two fundamental propertieslike energy and mass. In above section we learned 'energy and mass' of each unit element in each 4D plane already. From above section we can summarized the 'energy and mass' transformation of unit elements together, and presented in Figure 16 1.

Here we learn about 'energy and mass' of unit elements together.These two fundamental properties of each element in each 4D plane act together and transform in each 4D plane. The meaning of schematic in Figure 16 1 is further simplified and explained in brief as shown inFigure 16 2.

16.1 Relationship between Energy and Mass of Unit Elements

Energy and mass, these two fundamental properties of each element in each 4D plane act together and transform in each 4D plane.Simple understanding of energy and mass relation of unit elements is explained/presented by schematic di-

$_ePS_{UE}$ & $_mPS_{UE}$ — $_eIS_{UE}$ & $_mIS_{UE}$ — $_eVS_{UE}$ & $_mVS_{UE}$ — $_eCS_{UE}$ & $_mCS_{UE}$ — $_eMS_{UE}$ & $_mMS_{UE}$

Figure 16 1:
GODEYE Model energy-mass transformation of unit elements

$_ePS_{UE}$ and $_mPS_{UE}$ from PS plane transform to $_eIS_{UE}$ and $_mIS_{UE}$ in IS plane

(energy & mass of PS_{UE})   transform to   (energy & mass of IS_{UE})

$_eIS_{UE}$ and $_mIS_{UE}$ from IS plane transform to $_eVS_{UE}$ and $_mVS_{UE}$ in VS plane

(energy & mass of IS_{UE}) transform to   (energy & mass of VS_{UE})

$_eVS_{UE}$ and $_mVS_{UE}$ from VS plane transform to $_eCS_{UE}$ and $_mCS_{UE}$ in CS plane

(energy & mass of VS_{UE})   transform to   (energy & mass of CS_{UE})

$_eCS_{UE}$ and $_mCS_{UE}$ from CS plane transform to $_eMS_{UE}$ and $_mMS_{UE}$ in MS plane

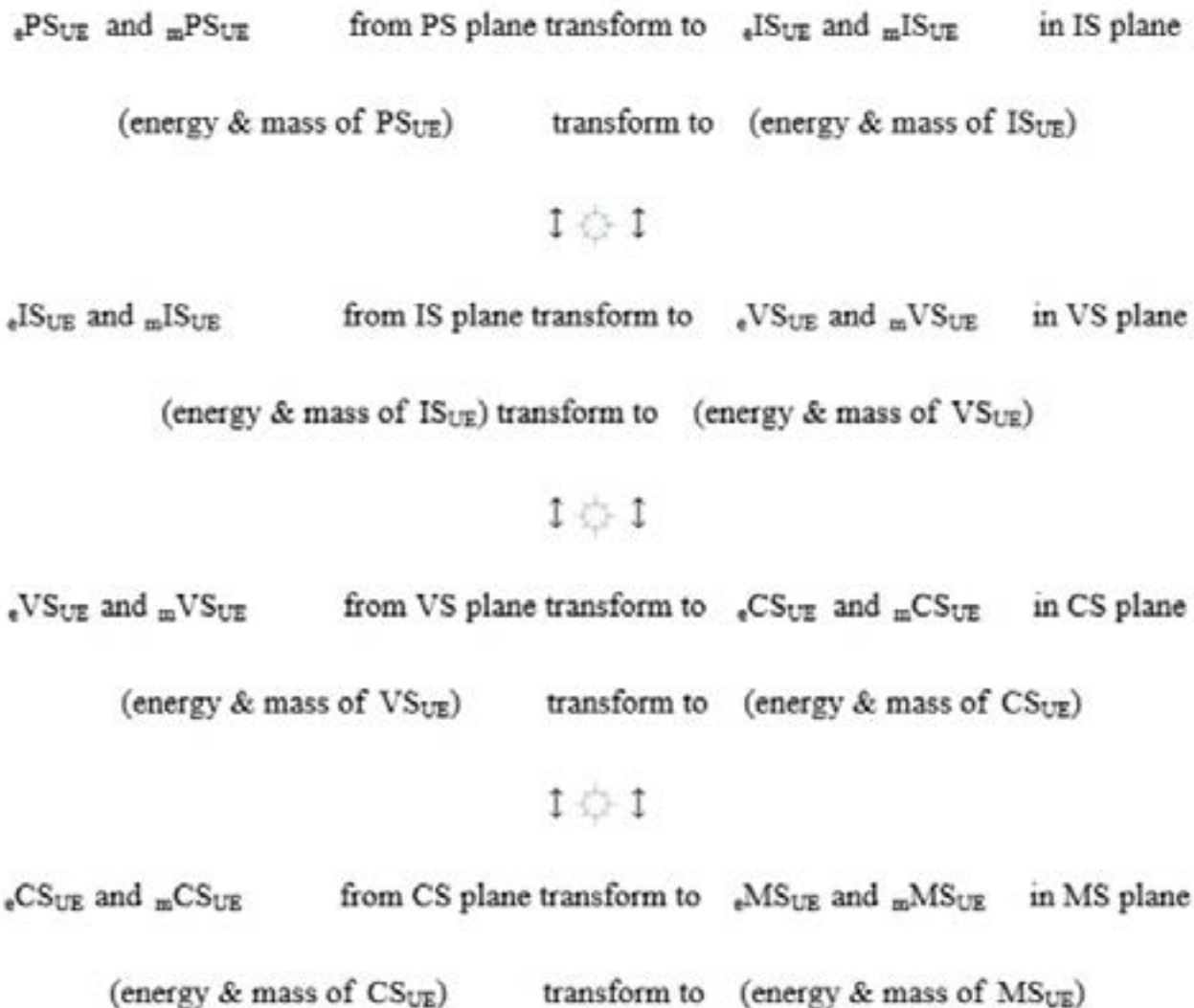(energy & mass of CS_{UE})   transform to   (energy & mass of MS_{UE})

Figure 16 2:
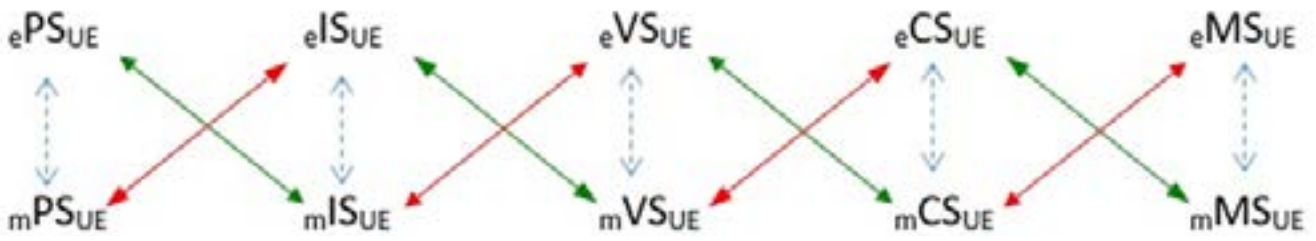**Simplified GODEYE model energy-mass transformation of unit elements**

Figure 16 3:
Schematic diagram for energy-mass relationship of unit elements

agram as in Figure 16 3.The meaning of schematic diagram in Figure 16 3is explained as under. ePS_{UE}acts on mIS_{UE} and transformsmIS_{UE} to mPS_{UE}, andmPS_{UE}actsoneIS_{UE}andtransformseIS_{UE}toePS_{UE}. eIS_{UE}acts on $mPS_{UE}$and transformsmPS_{UE} to mIS_{UE}, andmIS_{UE}actsonePS_{UE}andtransformsePS_{UE}toeIS_{UE}. eIS_{UE}acts on $mVS_{UE}$and transformsmVS_{UE} to mIS_{UE}, andmIS_{UE}actsoneVS_{UE}andtransformseVS_{UE}toeIS_{UE}.

eVS_{UE} acts onmIS_{UE} and transformsmIS_{UE} to mVS_{UE}, and mVS_{UE} acts one$IS_{UE}$and transformseIS_{UE} to eVS_{UE}.
eVS_{UE}acts onm$CS_{UE}$and transformsmCS_{UE} to mVS_{UE}, and mVS_{UE} acts one$CS_{UE}$and transformseCS_{UE} to eVS_{UE}.

eCS_{UE}acts on $mVS_{UE}$and transformsmVS_{UE} to mCS_{UE}, and mCS_{UE} acts one$VS_{UE}$and transformseVS_{UE} to eCS_{UE}.
eCS_{UE}acts onm$MS_{UE}$and transformsmMS_{UE} to mCS_{UE}, and mCS_{UE} acts one$MS_{UE}$and transformseMS_{UE} to eCS_{UE}.

eMS_{UE}acts on $mCS_{UE}$and transform mCS_{UE} to mMS_{UE}, and mMS_{UE} acts on $eCS_{UE}$and transform eCS_{UE} to eMS_{UE}.

In conclusion, it says 4D plane to 4D plane, energy transforms from one form to another form. And it says 4D plane to 4D plane, mass transforms from one form to another form. Here, ePS_{UE}, eIS_{UE}, eVS_{UE}, eCS_{UE}, eMS_{UE}, rep-

resent energy of the unit elements and mPS_{UE}, mIS_{UE}, mVS_{UE}, mCS_{UE}, mMS_{UE}, represent mass of the unit elements. So, schematic diagram inFigure 16 3is further simplified with just 'energy and mass', and presented as in Figure 16 4. And Figure 16 4 schematic diagramis further
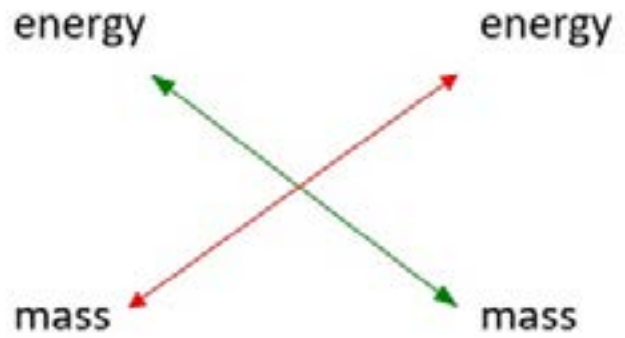

Figure 16 5:
General Schematic diagram for energy-mass relationship

simplified and generalized as in Figure 16 5. This simplifies and represents that "energy transforms the mass" and "mass transforms the energy". Here isthe transformation relationship between energy and mass. And I may define this transformation relationship by symbol". With this transformation relationship symbol" schematics diagram as inFigure 16 5isfurther updated and represented as inFigure 16 6.
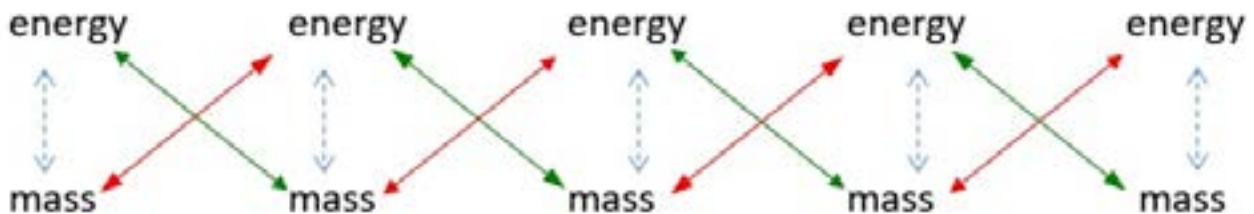

Figure 16 4:
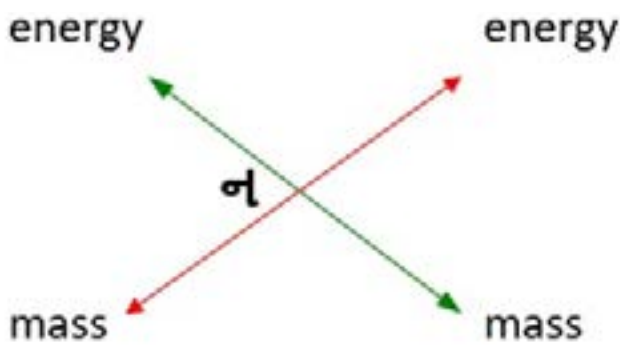**Simplified Schematic diagram for energy-mass relationship of unit elements**

Figure 16 6:
General Schematic diagram for energy-mass relationship with transformation factor

And, with this transformation relationship symbol schematics diagram as inFigure 16 6 is further updated and represented as in Figure 16 7.

This simplifies and represents that "energy transforms the mass" and "mass transforms the energy". And " " is the transformation factor between energy and mass.

But, this transformation factor " " is not the same for the PS plane, IS plane, VS plane, CS plane, and MS plane. And they are different.

So, In the PS plane for $ePS_{UE}$and mPS_{UE},the transformation factor is symbolized as "P".

And, In the IS plane for eIS_{UE} and mIS_{UE},the transformation factor is symbolized as "I".

And, In the VS plane for eVS_{UE} and mVS_{UE}, the transformation factor is symbolized as "V".

And, In the CS plane for eCS_{UE} and mCS_{UE}, the transformation factor is symbolized as "C".

And, In the MS plane for eMS_{UE} and mMS_{UE}, the transformation factor is symbolized as "M".
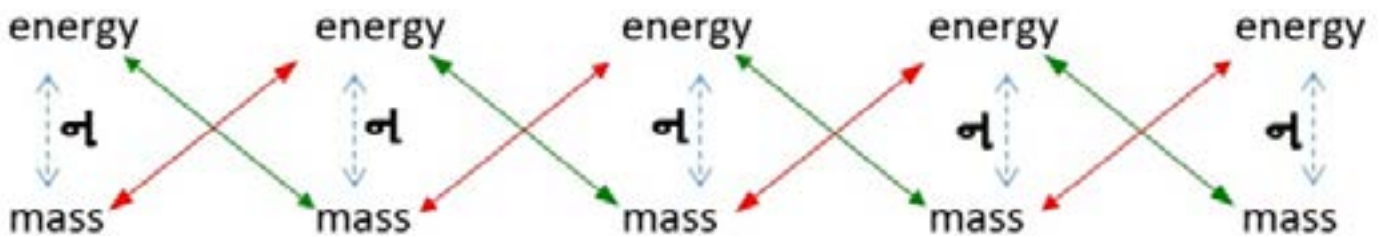
And, the P ≠ I ≠ V ≠ C ≠ M.

Figure 16 7:
Simplified Schematic diagram for energy-mass relationship with transformation factor
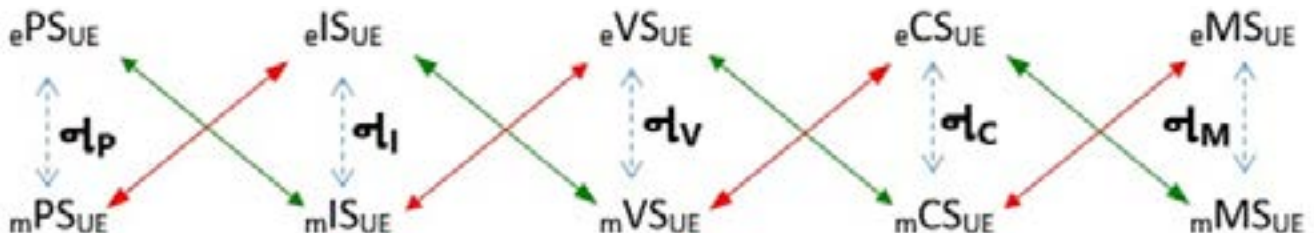

Figure 16 8:
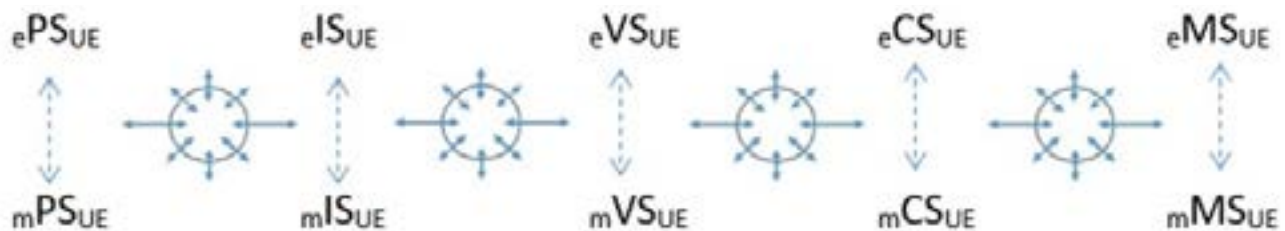**Schematic diagram for energy-mass relationship of unit elements with transformation factor**

Figure 16 9:
Schematic diagram for GODEYE model energy-mass relationship of unit elements

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1 https://en.wikipedia.org/w/index.php?title=Gujarati_script&oldid=1223782816, Accessed 17 May, 2024. is taken from Gujarati alphabet and it pronounces "na".

So, With these transformation factors "P", "I" , "V" , "C" , "M" ,the schematics diagram as in Figure 16 7 is more further updated and represented as in Figure 16 8.

Moreover,the understanding of 'energy and mass'relation of unit elements is simplified and explained with GODEYE Model transformation operator as in Figure 16 9.

The schematic diagram Figure 16 9shows GODEYE Model energy-mass transformation of each unit element from PS plane to MS plane, and from MS plane to PS plane.

Now I update GODEYE Model Energy-Mass transformation with energy-mass transformation facto for each unit element in each 4D plane. The resulting schematic diagram is represented as in Figure 16 10.
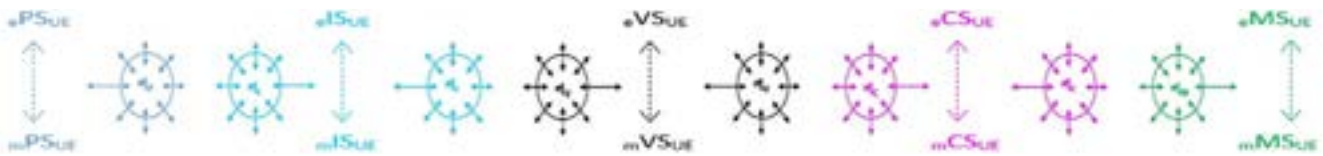
Observable Universe and beyond",energy and mass are the physical properties of unit element. As unit element transforms from one 4D plane to another 4D plane its energy and mass transform too respectively and accordingly. It also says energy transforms the mass and mass transforms the energy, and the relationship between energy and mass is described by transformation factor. The energy and mass of Unit elements are described as under. Unit element's energy and mass, in the PS plane,

$$Energy = ePS_{UE} \hspace{3cm} Mf.16\ 1$$
$$Mass = mPS_{UE} \hspace{3cm} Mf.16\ 2$$

For, ePS_{UE} and mPS_{UE} the relationship is described by transformation factor is "P".

Figure 16 10:
Schematic diagram for GODEYE model energy-mass relationship with transformation factor

The schematic diagram Figure 16 10shows GODEYE Model energy-mass transformation of each unit element with respective energy-mass transformation factor(P , I, V , C , M) from PS plane to MS plane, and from MS plane to PS plane.

16.2 Analogy of Energy and Mass transformation of Unit Elements with E=mc2

Purpose of this section is to get close understanding of energy-mass relationship.As in above we already learn theexistenceof fundamental relationship between energy and mass. One such a fundamental relationship exists already and defined by Sir Albert Einstein, which is "E=mc2". In "E=mc2", the relationship between mass and energy is defined in mathematical form. Which says mass and energy both are different manifestations of same thing or they are different forms of the same thing. The equation says energy and mass are interchangeable, it means 'mass can covert to energy' and 'energy can convert to mass'. The "c" is speed of light with constant value of "299 792 458 m / s" and the relationship between energy and mass is described by the conversion factor"c2". In my case"Nature of Space and Dimension of

Unit element's energy and mass, in the IS plane,
$$Energy = eIS_{UE} = ePS'_{UE} + eI'S_{UE} \hspace{1cm} Mf.16\ 3$$
$$Mass = mIS_{UE} = mPS'_{UE} + mI'S_{UE} \hspace{1cm} Mf.16\ 4$$

For, eIS_{UE} and mIS_{UE} the relationship is described by transformation factor is "I".

Unit element's energy and mass, in the VS plane,

$$Energy = eVS_{UE} = ePS''_{UE} + eIS'_{UE} + eV'S_{UE} + e'CS_{UE} + e''MS_{UE} \hspace{1cm} Mf.16\ 5$$
$$Mass = mVS_{UE} = mPS''_{UE} + mIS'_{UE} + mV'S_{UE} + m'CS_{UE} + m''MS_{UE} \hspace{1cm} Mf.16\ 6$$

For, eVS_{UE} and mVS_{UE} the relationship is described by transformation factor is "V".

Unit element's energy and mass, in theCS plane,

$$Energy = eCS_{UE} = ePS''_{UE} + eIS''_{UE} + eVS'_{UE} + eC'S_{UE} + e'MS_{UE} \hspace{1cm} Mf.16\ 7$$
$$Mass = mCS_{UE} = mPS'''_{UE} + mIS''_{UE} + mVS'_{UE} + mC'S_{UE} + m'MS_{UE} \hspace{1cm} Mf.16\ 8$$

For, eCS_{UE} and mCS_{UE} the relationship is described by transformation factor is "C".

Unit element's energy and mass, in theMS plane,

Energy $= eMS_{UE} = ePS''''_{UE} + eIS'''_{UE} + eVS''_{UE} + eCS'_{UE} + eM'S_{UE}$ Mf.16 9

Mass $= mMS_{UE} = mPS''''_{UE} + mIS'''_{UE} + mVS''_{UE} + mCS'_{UE} + mM'S_{UE}$ Mf.16 10

Figure 16 11:
General Schematic diagram for energy-mass relationship with conversion factor

For, eMS_{UE} and $m\,MS_{UE}$ the relationship is described by transformation factor is "M". As unit element transform from one 4D plane to another 4D plane, its energy and mass transform too respectively and accordingly. For unit

transformation factor "M". So, In each 4D plane the 'quantity and nature' of 'energy and mass' of unit element 'vary and change' according to transformation factor "P" ,"I" ,"V" ,"C" ,"M". But hereI do not define transformation factor "P" ,"I" ,"V" ,"C" ,"M"in term of any value and function, and do not define relationship between mass and energy in mathematical form yet. Now,Icompare relationship factor between energy and mass, in my case "Nature of Space and Dimension of Observable Universe and beyond", between energy and mass the relationship factor is. In "E=mc²",between energy and mass the relationship factor is "c²". If Iapply and update above describedenergy-mass schematic diagram as inFigure 16 6with the relationship factor "c²" the schematic diagramcan be represented as in Figure 16 11. And, if I apply and update above described energy-mass schematic diagram as inFigure 16 7 with the relationship factor "c²" t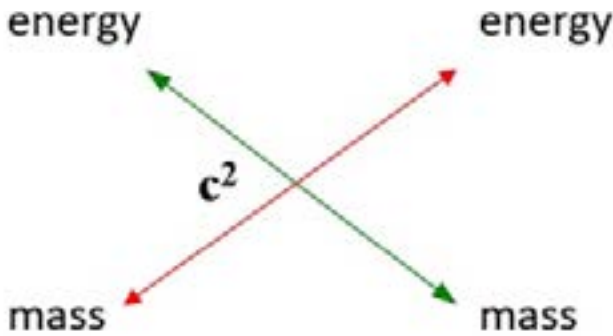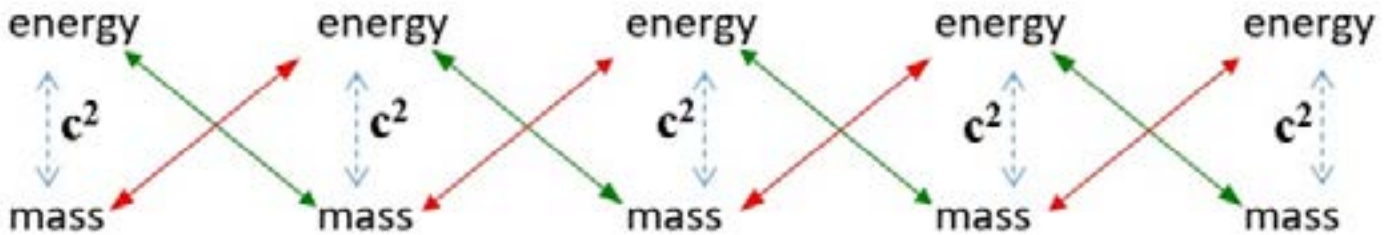he schematic diagram can be represented as in Figure 16 12. And, if I apply and update above described energy-mass schematic diagram as inFigure 16 8 with the relationship factor "c²" the schematic diagram can be represented as in Figure 16 13.

Figure 16 12:
Simplified Schematic diagram for energy-mass relationship with conversion factor

element, in the PS plane transformation factor is"P",in the IS plane transformation factor "I",in the VS plane transformation factor "V",in the CS plane transformation factor "C",in the MS plane

Thefactor"c²" is not the same as the factorbut in my case here "c²" may be part of. So, may be presented as the function of the "c2".(The exact relationship of and "c2" is subjected to future research done).
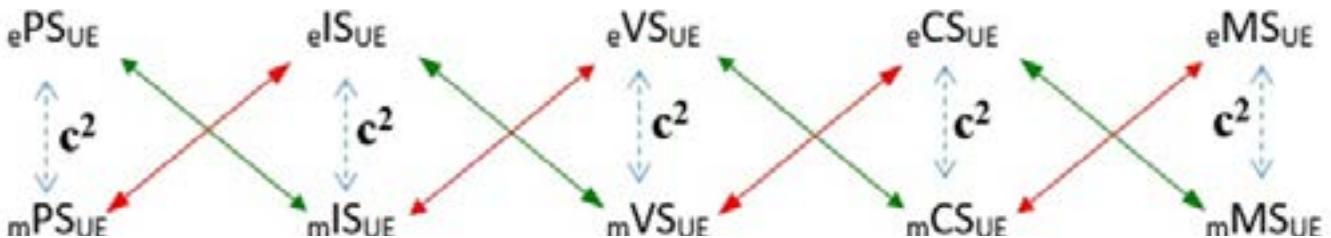

Figure 16 13:
Schematic diagram for energy-mass relationship of unit elements with conversion factor

In my case Nature of Space and Dimension of Observable Universe and beyond", if "c^2" is part of then for P the c = cp, for I the c = cI, for V the c = cV, for C the c = cC, for M the c = cM. So, the above energy-mass schematic diagram as in Figure 16 13 may update and represented as in Figure 16 14.

is limited within CS plane to MS plane only. Case of "Nature of Space and Dimension of Observable Universe and Beyond" Here, Energy and mass are the physical properties of unit elements. As unit element transforms from one 4D plane to another 4D plane its energy and
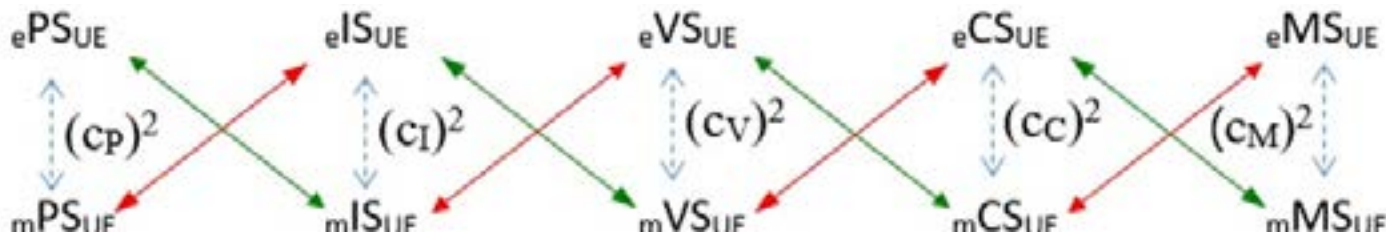

Figure 16 14:
Schematic diagram for energy-mass relationship of unit elements with different conversion factor

The schematic diagram as in Figure 16 14 says, If I apply the value of 'c = 299 792 458 m / s',to my case "Nature of Space and Dimension of Observable Universe and beyond"and if "c" may be part of then value of "c" is not the same for the PS plane, IS plane, VS plane, CS plane, and MS plane. The value of "c" may be different for each 4D plane but in this research paper I do not define such a value of "c" in each 4D plane. So, In my case "Nature of Space and Dimension of Observable Universe and beyond", the actual mathematical relationship between energy-mass and role of "c" or any role of "c" is subjected and pending for final research paper coming in near or far future. Finally, for both cases analogies are concluded as under.

Case of "E=m^{c2}"

Which says mass and energy are both but different manifestations of same thing or they are different forms of the same thing. The equation says energy and mass are interchangeable, it means mass can covert to energy and energy can convert to mass. The "c" is speed of light with constant value of "299 792 458 m / s" and the relationship between energy and mass is described by the conversion factor "c^2". Here, Meaning of conversion factor "c^2" is conversion only, the value of 'speed of light'limited to photon, it is limited to wave-particle duality, and if I apply "c" to "Nature of Space and Dimension of Observable Universe and Beyond"then"c"

mass transform too respectively and accordingly. It means one form of energy transforms to another form of energy and one form of mass transforms to another forms of mass. It also says energy transforms the mass and mass transforms the energy. The relationship between energy and mass is described by transformation factor. In each 4D plane the 'quantity and nature' of 'energy and mass' of unit element 'vary and change' according to transformation factor "P" ,"I" ,"V" ,"C" ,"M". But here I do not define transformation factor "P" ,"I" ,"V" ,"C" ,"M" in term of any mathematicalvalue and function, and do not define relationship between mass and energy in mathematical form yet. is not only value for transformation rate at which unit element transforms from one 4D plane to another 4D plane, and is not only value for transformation rate at which one form of energy transforms to another form of energy, and is not only value for transformation rate at which one form of mass transforms to another forms of mass, and is not only value for transformation rate at which energy transforms the mass and mass transforms the energy. But it is also the transformation function for transformation rate. So, Transformation factor has much broad meaning with 'quantity and nature' of energy and mass. is the transformation factor, it is variable. It is applicable to photon and applicable beyond the photon, it is applicable to wave-particle duality and applicable beyond the wave-particle duality, is applicable for "Nature of Space and Dimension of Observable Universe

and beyond". It means, it is applicable for all PS plane, IS plane, VS plane, CS plane, MS plane.

17   Transformation of the GODEYE and GODEYE Model

The GODEYE and GODEYE Model presented in Figure 12 1 and in Figure 12 2, are applicable to MS and to partial CS only. As the physical structure of the space transforms from MS to CS to VS to IS to PS and v/s, the Geometry of the structure transforms too. The GODEYE and GODEYE Model work following the physical structure in each MS, CS, VS, IS, PS. For each CS, VS, IS, PS the geometry of GODEYE (GE) may not look and behave the same as presented here in Figure 12 1. For each CS, VS, IS, PS the geometric GODEYE Modelmay not look and behave the same as presented here inFigure 12 2. But as the structure of the space transforms the geometry of GODEYE and GODEYE Model may transforms too. So, the geometry of GODEYE and GODEYE Model may not look the samefor all as presented in Figure 12 1 and in Figure 12 2 but it may look different and presented different ways for each CS, VS, IS, PS. Alternatively we can say the physical structure of each MS, CS, VS, IS, PS can be described by respective geometric structure of GODEYE. The transformation of this respective GODEYE geometric structure is synonymous to respective physical structure transformation. So, the space physical structure and its transformation, is represented with GODEYE geometric structure and GODEYE geometric structure transformation. The phenomena of the black hole, black hole's singularity and the initial singularity or initial state of the universe are actually part of space structure transformation from MS to CS and v/s, and from VS to CS and v/s. So, the nature of black hole and black hole's singularity can be best explained by GODEYE geometric structure transformation from MS to CS and v/s. And, the nature of initial singularity or initial state of the universe can be best explained by GODEYE geometric structure transformation from VS to CS and v/s. In this research paper I do not define such a geometry of GODEYE from MS to CS, and in CS, and in VS, and in IS and in PS. And I do not define such a geometry of GODEYE Model for 'from MS to CS', and for CS, and for VS, and for IS, and for PS. The geometry of GODEYE and GODEYE Model for 'from MS to CS', and for CS, and for VS, and for IS, and,for PSare subjected and pending for research paper coming in near or far future.

18   Phenomena of Nature of Singularity

Nature of singularity, many astrophysicists have presented several naming, concepts and theories of singularity. But, the singularity's naming, concepts and theories mainly emerge from most known and widely accepted General relativity, Black hole, Big Bang, Particle physics and String theory. In these theories the singularity is discussed as, the space-time point with infinitely small space, the space-time point which contains huge mass in an infinitely small space, the space-time point where space-time curves infinitely, the space-time point where density and gravity become infinite, the space-time point where all laws of physics break down, and as the initial hot and dense state. [27][18][52][8][10][53][54][55] From these theories the singularity is defined in various ways likeSpace-time singularity of the black hole, Gravitational singularity of the black hole, Initial singularity or Big Bang singularity, and Point like particle or one dimensional string. Space-time singularity of the black hole: Here the singularity is defined as the space-time point (infinitely small space-time) of the black hole where space-time curves infinitely. In theory of general relativity, this space-time point of the black hole is same for the gravitational singularity of the black hole, and the space-time singularity of the black hole is same as the gravitational singularity of the black hole. Gravitational singularity of the black hole: Here the singularity is defined as the space-time point (infinitely small space-time) of the black hole where density and gravity become infinite. In theory of general relativity, this space-time point of the black hole is same for the space-time singularity of the black hole, and the gravitational singularity of the black hole is same as the space-time singularity of the black hole. Initial singularity or Big Bang singularity: Here the initial singularity is defined as the initial hot and dense state from which universe was emerged. This initial state of the Big Bang is also called Big Bang singularity. [53] Point like particle and one dimensional string: Here the singularity is defined as the point-like particles of particle physics and these point like particles of particle physics are replaced by one-dimensional strings in string theory. [10][52][56] Above theories have various approaches to define the singularity. And the singularity is defined

with terms of infinitely small space, infinitely small space-time, infinitely curved space-time, infinite density, infinite gravity, initial hot and dense state, point like particle, and one dimensional string. In fact and in my opinion existence of as such nature of singularity must be unique. So, even the various approaches must represent the same unique singularity. It is uncertain that all above approaches represent the singularity is uniquely same or different. Also, the singularity defined by above approaches is incomplete and inconsistent to derive theory of everything because all laws of physics break down at singularity defined by General relativity, and the all laws of physics break down while entering to center of the black hole, and the all laws of physics work while universe emerged out from initial state, and while at one dimensional string all laws of physics work as claimed by string theory but its final acceptance is still pending. Even though the singularity is not the main subject of my research for now, the Nature of Space described here for "Dimension of Observable Universe and beyond" covers as such nature which I called as "phenomena of nature of singularity". In different theories the concept of singularity is defined in different ways by astrophysicists. Here I may align Nature of Spaceof "Dimension of Observable Universe and beyond" to existing concepts, theories and naming of the singularity. In my approach here, I may represent "Phenomena of nature of singularity" as under. Instead I represent just unique singularity of the space-time, I may break down it as unique to respective space-time. In my research, I represent M space-time, C space-time, V space-time, I space-time, and P space-time. And I may say unique singularity for each respective M space-time, C space-time, V space-time, I space-time, and P space-time. Which I represent in more details as under.
Singularity $_{(MS)}$ It is the space-time singularity in $_{MS}$ plane. And it is defined as the elementary space-time of the MS plane. Which is the space-time of the MS_{UE}.
Singularity $_{(CS)}$ It is the space-time singularity in CS plane.   And it is defined as the elementary space-time of the CS plane. Which is the space-time of the CS_{UE}.
Singularity $_{(VS)-}$ It is the space-time singularity in $_{VS}$ plane. And it is defined as the elementary space-time of the VS plane. Which is the space-time of the VS_{UE}.
Singularity $_{(IS)-}$ It is the space-time singularity in $_{IS}$ plane. And it is defined as the elementary space-time of the IS plane. Which is the space-time of the IS_{UE}.
Singularity $_{(PS)-}$ It is the space-time singularity in $_{PS}$ plane. And it is defined as the elementary space-time of the PS plane. Which is the space-time of the PS_{UE}.
For the black hole, as mentioned above the space-time singularity of the black hole, and Gravitational singularity of the black hole, I may simply called it as singularity of the black hole. It is doubtful and not 100% accepted, that the center of black hole represents the ultimate and unique singularity. Also, it may be too early for me to say if the singularity at center of the black hole 100% fits with any of above singularity (Singularity $_{(MS)}$, Singularity $_{(CS)}$, Singularity $_{(VS)}$, Singularity $_{(IS)}$, and Singularity $_{(PS)}$). So, in this research paper, instead of saying that the center of black hole represents the singularity, I would represent it as Singularity (black hole). Moreover, As per General relativity theory all laws of physics break down at the center of the black hole where space-time curves infinitely. So, until it is proved and accepted that the center of black hole represents ultimate and unique singularity, in this research paper I would name and refer it as the "Singularity (black hole)"or "Singularity (b h)".
For the Big Bang, It is doubtful and not 100% accepted, that the initial hot and dense state represents the ultimate and unique singularity. Also, it may be too early for me to say if the Big Bang singularity 100% fits with any of above singularity (Singularity $_{(MS)}$, Singularity $_{(CS)}$, Singularity $_{(VS)}$, Singularity $_{(IS)}$, and Singularity $_{(PS)}$). So, in this research paper, instead of saying that the initial hot and dense state represents the Initial singularity or Big Bang singularity, I would represent it as Singularity (Initial state) or Singularity (Big Bang). Moreover, As per Big Bang theory all laws of physics do not work at the initial hot and dense state. So, until it is proved and accepted that the initial hot and dense state represents ultimate and unique singularity, in this research paper I would name and refer it as the "Singularity (Initial state)" or"Singularity $_{(I\,s)}$" or "Singularity (Big Bang)"or "Singularity (B B)".
Here I may further expand "phenomena of nature of singularity", from $P_{(X,\,Y,\,Z,\,T)}$ to $Q_{(X,\,Y,\,Z,\,T)}$, and from $Q_{(X,\,Y,\,z,\,T)}$ to $P_{(X,\,Y,\,Z,\,T)}$. I may name and represent "phenomena of nature of singularity", from $P_{(X,\,Y,\,Z,\,T)}$ to $Q_{(X,\,Y,\,Z,\,T)}$ as under.
The space-time singularity in $_{PS}$ plane - Singularity' $_{(PS)}$.
The space-time singulari-

ty in IS plane - Singularity'$_{(IS)}$. The space-time singularity in $_{VS}$ plane - Singularity'$_{(VS)}$. The space-time singularity in $_{CS}$ plane - Singularity'$_{(CS)}$. The space-time singularity in $_{MS}$ plane - Singularity'$_{(MS)}$. The Black hole singularity - Singularity' (black hole)or Singularity'$_{(b\ h)}$. The Initial singularity or Big Bang singularity - Singularity' (Initial state)orSingularity'$_{(I\ s)}$ or Singularity' (Big Bang)or Singularity' (B B). And, I may name and represent "phenomena of nature of singularity", from Q$_{(X,Y,Z,T)}$ to P$_{(X,Y,Z,T)}$ as under. The space-time singularity in $_{MS}$ plane - 'Singularity $_{(MS)}$). The space-time singularity in $_{CS}$ plane - 'Singularity $_{(CS)}$. The space-time singularity in $_{VS}$ plane - 'Singularity $_{(VS)}$. The space-time singularity in $_{IS}$ plane - 'Singularity$_{(IS)}$. The space-time singularity in $_{PS}$ plane - 'Singularity$_{(PS)}$. The Black hole singularity - 'Singularity (black hole)or 'Singularity (b h). The Initial singularity or Big Bang singularity - 'Singularity (Initial state)or'Singularity (I s) or 'Singularity (Big Bang)or 'Singularity (B B). In final summary, the "phenomena of nature of the singularity" may represented by combine nature of all, Singularity $_{(MS)}$,Singularity $_{(CS)}$,Singularity $_{(VS)}$,Singularity $_{(IS)}$,and Singularity $_{(PS)}$,for "Nature of Space for Dimension of Observable Universe and beyond". And in my research here, for the Black hole, instead of I refer the singularity of the black hole, I may name and refer it as Singularity (b h). And in my research here, for the Big Bang, instead of I refer the Initial singularity or Big Bang singularity, I may name and refer it as Singularity (I s) or Singularity (B B). And, the "phenomena of nature of the singularity" from P$_{(X,\ Y,\ Z,\ T)}$ to Q$_{(X,\ Y,\ Z,\ T)}$ is represented by Singularity'$_{(PS)}$,Singularity'$_{(IS)}$,Singularity'$_{(VS)}$,Singularity'$_{(CS)}$,Singularity'$_{(MS)}$, Singularity'(bh),Singularity'(Is),Singularity'(BB). And, the "phenomena of nature of the singularity" from Q$_{(X,\ Y,\ Z,\ T)}$ to P$_{(X,\ Y,\ Z,\ T)}$ is represented by 'Singularity $_{(MS)}$,'Singularity $_{(CS)}$,'Singularity $_{(VS)}$,'Singularity $_{(IS)}$,'Singularity $_{(PS)}$,'Singularity $_{(b\ h)}$,'Singularity $_{(I\ s)}$,'Singularity $_{(B\ B)}$. Here purpose of this "Phenomena of nature of singularity" is to align as such singularity nature of space for "Dimension of Observ-

able Universe and beyond" to existing naming, concepts and theories of the singularity. In "Phenomena of nature of singularity" here, it will be too early for me to call and name as such natureas the "singularity". But better I call and name such natureas the"singularity like nature". And for exact definition, naming and theory, I may keep open for research paper coming in the future. In my research here I may keep limited use of "Phenomena of nature of singularity" for concept and naming to refer existing theories of singularity.

19   Phenomena of Nature of Black hole and beyond

Nature of Black hole, many astrophysicists have presented several concepts and theories of black hole. But, the black hole naming, concept and theory mainly emerge from most known and widely accepted general relativity and deep space observations and Schwarzschild radius. In these observations and theories the black hole is described and studied as, acelestial regionthat looks and acts like black body, as it reflects no light and nothing can escape it.And theblack hole is described and studied as,region of space-time where gravity is so strong that nothing, not even light and other electromagnetic waves, can escape it. The Theory of General relativity predicts that a sufficiently compact mass can deform space-time to form such a space-time region which acts like black body.And the center of the black body which contains huge mass in an infinitely small space where density and gravity become infinite and space-time curves infinitely. This center space-time point is called Gravitational singularity of the black hole.And anything that crossed in the boundary of this black body that cannot escape it, not even light and other electromagnetic waves, can escape it. This boundary of no escape is called the event horizon.So, these observations and theories describe nature of black hole mainly by body of the black hole, event horizon of black hole and singularity of the black hole or gravitational singularity of the black hole or space-time singularity of the black hole.[27][54][57][58] Even though the black hole is not the main subject of my research for now, the Nature of Space described here for "dimension of observable universe and beyond" covers as such nature which I called as "phenomena of nature of black hole and beyond".And Imay align this Nature of Spaceto nature of black hole by several combine "space events" happening within "dimension of observa-

ble universe and beyond". It would be not possible to define as such nature of black hole by single event. So, the several combine events represent as such nature of "black hole and beyond the black hole". In my research here as such nature of space may described by below few combine key events. The, 'Event 1, 'Event 2, 'Event 3, 'Event 4, describe nature of existence from $Q_{(X, Y, Z, T)}$ to $P_{(X, Y, Z, T)}$. The, Event' 1, Event' 2, Event' 3, Event' 4, describe nature of existence from $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$.

'Event 1:
Only some part ('MS plane) of the MS plane transforms to CS' plane.
                "Or can say"
Only some region ('MS region) of the MS plane transforms to CS' region.
                "Or can say"
Only partial dimensional part ('MS plane) of the MS plane transforms to CS' plane. The "involved part of the space ('MS plane) and resulted part of the space (CS' plane)", or can say "involved region of the space ('MS region) and resulted region of the space (CS' region)", or can say "involved partial dimensional part of the space ('MS plane) and resulted partial dimensional part of the space (CS' plane)", due to "'Event 1" represent existence and nature of the space such as body of the black hole, event horizon of the black hole.

'Event 2:
Only in some part ('MS plane) of the MS plane, the matter unit element ('MS$_{UE}$) transforms to charged space unit element (CS'$_{UE}$).
                "Or can say"
Only in some region ('MS region) of the MS plane, the matter unit element ('MS$_{UE}$) transforms to charged space unit element (CS'$_{UE}$).
                "Or can say"
Only in partial dimensional part ('MS plane) of the MS plane, the matter unit element ('MSUE) transforms to charged space unit element (CS'$_{UE}$). The "resulted unit element of the space (CS'$_{UE}$) (due to 'Event 2) in resulted part of the space (CS' plane) (from 'Event 1)", or can say "resulted unit element of the space (CS'$_{UE}$) (due to 'Event 2) in resulted region of the space (CS' region) (from 'Event 1)", or can say "resulted unit element of the space (CS'$_{UE}$) (due to 'Event 2) in resulted partial dimensional part of the space (CS' plane) (from 'Event 1)", represents existence and nature such as "singularity of the black hole ('Singularity (b h))" or can say "gravitational

singularity of the black hole ('Singularity (b h))", or can say "space-time singularity of the black hole ('Singularity (b h))" or can say "singularity in resulted CS' plane", or can say "gravitational singularity in resulted CS' plane', or can say "space-time singularity in resulted CS' plane".

'Event 3:
Only some part (C'S' plane) of resulted CS' plane (resulted from 'Event 1), transforms to CS plane, and "resulted CS plane transforms to 'CS plane", and "resulted 'CS plane transforms to VS' plane".
                "Or can say"
Only some region (C'S' region) of resulted CS' region (resulted from 'Event 1), transforms to CS region, and "resulted CS region transforms to 'CS region", and "resulted 'CS region transforms to VS' region".
                "Or can say"
Only partial dimensional part (C'S' plane) of resulted CS' plane (resulted from 'Event 1), transforms to CS plane, and "resulted CS plane transforms to 'CS plane", and "resulted 'CS plane transforms to VS' plane". The "involved part of the space (C'S' plane), resulted part of the space (CS plane) and involved part of the space (CS plane), resulted part of the space ('CS plane) and involved part of the space ('CS plane), and resulted part of the space (VS' plane)", or can say "involved region of the space (C'S' region), resulted region of the space (CS region) and involved region of the space (CS region), resulted region of the space ('CS region) and involved region of the space ('CS region), and resulted region of the space (VS' region)", or can say "involved partial dimensional part of the space (C'S' plane), resulted partial dimensional part of the space (CS plane) and involved partial dimensional part of the space (CS plane), resulted partial dimensional part of the space ('CS plane) and involved partial dimensional part of the space ('CS plane), and resulted partial dimensional part of the space (VS' region)", due to "'Event 3" represent existence and nature of the space "beyond the singularity of the black hole('Singularity (b h)) and beyond the black hole" or can say "beyond the singularity of the resulted CS' plane and beyond the resulted CS' plane".

'Event 4:
Only in some part (C'S' plane) of resulted CS' plane (from 'Event 1), the involved charged space unit element (C'S'$_{UE}$) transforms to charged space unit element (CS$_{UE}$), and "the resulted charged

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space unit element (CS_{UE}) transforms to charged space unit element ('CS_{UE})", and "the resulted charged space unit element ('CSUE) transforms to vibrating space unit element (VS'_{UE})".

<div align="center">"Or can say"</div>

Only in some region (C'S' region) of resulted CS' region (from 'Event 1), the involved charged space unit element (C'S'UE) transforms to charged space unit element (CSUE), and "the resulted charged space unit element (CSUE) transforms to charged space unit element ('CSUE)", and "the resulted charged space unit element ('CSUE) transforms to vibrating space unit element (VS'UE)".

<div align="center">"Or can say"</div>

Only in partial dimensional part (C'S' plane) of resulted CS' plane (from 'Event 1), the involved charged space unit element ($C'S'_{UE}$) transforms to charged space unit element (CSUE), and "the resulted charged space unit element (CS_{UE}) transforms to charged space unit element ('CS_{UE})", and "the resulted charged space unit element ('CS_{UE}) transforms to vibrating space unit element (VS'_{UE})". The "resulted unit element of space (VS'_{UE}) (due to 'Event 4) in resulted part of the space (VS' plane) (as per 'Event 3)", or can say "resulted unit element of space (VS'_{UE}) (due to Event 4) in resulted region of the space (VS' region) (as per 'Event 3)", or can say "resulted unit element of space (VS'_{UE}) (due to 'Event 4) in resulted partial dimensional of the space (VS' plane) (as per 'Event 3)", represents existence and nature of the space such as "gravitational singularity beyond the black hole", or can say "space-time singularity beyond the black hole" or can say "gravitational singularity in resulted VS' plane" or can say "space-time singularity in resulted VS' plane". Above, 'Event 1, 'Event 2, 'Event 3, 'Event 4, describe nature of existence from $Q_{(X, Y, Z, T)}$ to $P_{(X, Y, Z, T)}$. Moreover, there happen opposite events too for nature of existence from $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$. Those are, "Event 1' is the opposite event of 'Event 1", "Event 2' is the opposite event of 'Event 2", "Event 3' is the opposite event of 'Event 3", "Event 4' is the opposite event of 'Event 4". From $P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$ in sequence the Event 3', Event 4', Event 1', Event 2', are described as under.

Event 3':
Only some part (VS' plane) of VS plane transforms to 'CS plane, and "resulted 'CS plane transforms to CS plane", and "resulted CS plane transforms to C'S' plane".

<div align="center">"Or can say"</div>

Only some region (VS' region) of VS plane transforms to 'CS region, and "resulted 'CS region transforms to CS region", and "resulted CS region transforms to C'S' region".

<div align="center">"Or can say"</div>

Only partial dimensional part (VS' plane) of VS plane transforms to 'CS plane, and "resulted 'CS plane transforms to CS plane", and "resulted CS plane transforms to C'S' plane". The "involved part of the space (VS' plane), resulted part of the space ('CS plane) and involved part of the space ('CS plane), resulted part of the space (CS plane) and involved part of the space (CS plane), and resulted part of the space (C'S' plane)", or can say "involved region of the space (VS' plane), resulted region of the space ('CS plane) and involved region of the space ('CS plane), resulted region of the space (CS plane) and involved region of the space (CS plane), and resulted region of the space (C'S' plane)", or can say "involved partial dimensional part of the space (VS' plane), resulted partial dimensional of the space ('CS plane) and involved partial dimensional of the space ('CS plane), resulted partial dimensional of the space (CS plane) and involved partial dimensional of the space (CS plane), and resulted region of the space (C'S' plane)", due to "Event 3'" represent existence and nature of the space "beyond the singularity of the black hole and beyond the black hole" or can say "beyond the singularity of the resulted CS' plane (from 'Event 2) and beyond the resulted CS' plane (from 'Event 1)". But here, the existence of, "beyond the singularity of the black hole" or can say "beyond the gravitational singularity of the black hole", or can say "beyond space-time singularity of the black hole", or can say "beyond the singularity of the resulted CS' plane (beyond the singularity from 'Event 2)" and the existence, "of beyond the black hole" or can say "beyond the resulted CS' plane (from 'Event 1)" have opposite nature than nature of existence presented by 'Event 3.

Event 4':
Only in some part (VS' plane) of VS plane, the involved vibrating space unit element (VS'UE) transforms to charged space unit element ('CS_{UE}), and "the resulted charged space unit element ('CS_{UE}) transforms to charged space unit element (CS_{UE})", and "the resulted charged space unit element (CS_{UE}) transforms to charged space unit element ($C'S'_{UE}$)".

<div align="center">"Or can say"</div>

Only in some region (VS' plane) of VS plane, "the involved vibrating space unit element (VS'UE) transforms to charged space unit element ('CS$_{UE}$)", and "the resulted charged space unit element ('CS$_{UE}$) transforms to charged space unit element (CS$_{UE}$)", and "the resulted charged space unit element (CS$_{UE}$) transforms to charged space unit element (C'S'$_{UE}$)".
<p align="center">"Or can say"</p>
Only in some partial dimensional part (VS' plane) of VS plane, "the involved vibrating space unit element (VS'$_{UE}$) transforms to charged space unit element ('CS$_{UE}$)", and "the resulted charged space unit element ('CS$_{UE}$) transforms to charged space unit element (CS$_{UE}$)", and "the resulted charged space unit element (CS$_{UE}$) transforms to charged space unit element (C'S'$_{UE}$)".
The involved unit element of space (VS'UE) (due toEvent 4') in involved part of the space (VS' plane) (as perEvent 3'), or can say "involved unit element of space (VS'$_{UE}$) (due toEvent 4') in involved region of the space (VS' region) (as perEvent 3')", or can say "involved unit element of space (VS$_{'UE}$) (due toEvent 4') in involved partial dimensional of the space (VS' plane) (as per Event 3')", represents existence and nature of the space such as "gravitational singularity beyond the black hole", or can say "space-time singularity beyond the black hole" or can say "gravitational singularity in involved VS' plane" or can say "space-time singularity in involved VS' plane". But here, the existence of, "the singularity of space beyond the singularity of the black hole", or can say "the singularity of space beyond the gravitational singularity of the black hole", or can say "the singularity of space beyond the space-time singularity of the black hole" or can say "gravitational singularity of the involved VS' plane" or can say "space-time singularity of the involved VS' plane" has opposite nature than nature of existence presented by 'Event 4.

Event 1':
Only some part (CS' plane) of the C'S' plane (resultedfrom Event 3') transforms to 'MS plane.
<p align="center">"Or can say"</p>
Only some region (CS' plane) of the C'S' region (resulted from Event 3') transforms to 'MS region.
<p align="center">"Or can say"</p>
Only partial dimensional part (CS' plane) of the C'S' plane (resulted from Event 3') transforms to 'MS plane. The "involved part of the space (CS' plane) and resulted part of the space ('MS plane)", or can say "involved region of the space (CS' region) and resulted region of the space ('MS region)", or can say "involved partial dimensional of the space (CS' plane) and resulted partial dimensional of the space ('MS plane)", due to "Event 1'" represent existence and nature of the space such as body of the black hole and event horizon of the black hole. But here, the existence of, the black hole and the event horizon of the black hole, have opposite nature than nature of existence presented by 'Event 1.

Event 2':
Only in some part (CS' plane) of the C'S' plane (resultedfrom Event 3'), the involved charged space unit element (CS$_{'UE}$) transforms to matter unit element ('MS$_{UE}$).
<p align="center">"Or can say"</p>
Only in some region (CS' plane) of the C'S' region (resultedfromEvent 3'), the involved charged space unit element (CS'$_{UE}$) transforms to matter unit element ('MS$_{UE}$).
<p align="center">"Or can say"</p>
Only in partial dimensional part (CS' plane) of the C'S' plane (resultedfromEvent 3'), the involved charged space unit element (CS'$_{UE}$) transforms to matter unit element ('MS$_{UE}$). The "involved unit element of the space (CS'$_{UE}$) (due to Event 2') in involved part of the space (CS' plane) (from Event 1')", or can say "involved unit element of the space (CS'$_{UE}$) (due to Event 2') in involved region of the space (CS' region) (from Event 1')", or can say "involved unit element of the space (CS'$_{UE}$) (due to Event 2') in involved partial dimensional part of the space (CS' plane) (from Event 1')", represents existence and nature such as "singularity of the black hole (Singularity' (b h))" or can say "gravitational singularity of the black hole (Singularity' (b h))", or can say "space-time singularity of the black hole (Singularity' (b h))", or can say "singularity in involved CS' plane" or can say "gravitational singularity in involved CS' plane, or can say "space-time singularity in involved CS' plane". But here, the existence of, "singularity of the black hole (Singularity' (b h))" or can say "gravitational singularity of the black hole (Singularity' (b h))" or can say "space-time singularity of the black hole (Singularity' (b h))" or can say "singularity in involved CS' plane" or can say "gravitational singularity in involved CS' plane" or can say "space-time singularity in involved CS' plane" has opposite nature

than nature of existence presented by 'Event 2. In summary from above all events, The 'Event 1 and Event 1' both represent existence and nature of as such black hole. Both events are opposite in nature, 'Event 1 represents "body of the black hole and event horizon of the black hole". While, Event 1' represents "black hole with opposite nature than that from 'Event 1". And the,'Event 2 and Event 2' both represent existence and nature of as such singularity of the black hole. Both events are opposite in nature, 'Event 2 represents "singularity of the black hole ('Singularity (b h))". While, Event 2' represents "singularity of the black hole (Singularity' (b h)) with opposite nature than that from 'Event 2". And the,'Event 3 and Event 3' both represent existence and nature of as such beyond the black hole. Both events are opposite in nature, 'Event 3 represents "beyond the singularity of the black holeand beyond the black hole". While, Event 3' represents "beyond the singularity of the black holeand beyond the black hole with opposite nature than that from 'Event 3". And the,'Event 4 and Event 4' both represent existence and nature of as such singularity beyond the black hole. Both events are opposite in nature, 'Event 4represents "space-time singularity beyond the black hole". While, Event 4' represents "singularity beyond the black hole", or can say "space-time singularity beyond the black hole with opposite nature than that from 'Event 4". From above summary, I may further expand "phenomena of nature of black hole and beyond", from $P_{(X, Y, z, T)}$ to $Q_{(X, Y, z, T)}$, and from $Q_{(X, Y, z, T)}$ to $P_{(X, Y, z, T)}$.I may name and represent "phenomena of nature of black hole and beyond", from $P_{(X, Y, z, T)}$ to $Q_{(X, Y, z, T)}$ as under. "Phenomena of nature of black hole and beyond", from $Q_{(X, Y, z, T)}$ to $P_{(X, Y, z, T)}$. 'Event 1, represents "body of the black hole and event horizon of the black hole". 'Event 2, represents "singularity of the black hole ('Singularity (b h))".'Event 3, represents "beyond the singularity of the black holeand beyond the black hole".'Event 4, represents "space-time singularity beyond the black hole".

For 'Event 1 and 'Event 2, I may name and represent black hole as 'Black hole. And,'Event 3 and 'Event 4 have nature beyond the 'Black hole which I do not name it and do not present in details for now. "Phenomena of nature of black hole and beyond" from $P_{(X, Y, z, T)}$ to $Q_{(X, Y, z, T)}$. The, Event' 1, represents "black hole with opposite nature than that from 'Event 1". Event' 2, represents "singularity of the black hole (Singularity' (b h))with opposite nature than that from 'Event 2". Event' 3, represents "beyond the singularity of the black holeand beyond the black hole with opposite nature than that from 'Event 3". Event' 4, represents "singularity beyond the black hole", or can say "space-time singularity beyond the black hole with opposite nature than that from 'Event 4". For Event' 1 and Event' 2, I may name and represent black hole as Black hole'. And,Event' 3 and Event' 4 have nature beyond the Black hole' which I do not name it and do not present in details for now. In final summary, the "Phenomena of nature of black hole and beyond" may represented by combine 'Event 1, 'Event 2 and Event' 1, Event' 2for the black hole, and may represented by combine 'Event 3, 'Event 4 and Event' 3, Event' 4 for beyond the black hole and beyond the singularity of black hole, for the "Nature of Space for Dimension of Observable Universe and beyond". And in my research here, for the Black hole, instead of I refer black hole, I may name and refer it as 'Black holefor, from $Q_{(X, Y, z, T)}$ to $P_{(X, Y, z, T)}$. And in my research here, for the Black hole, instead of I refer black hole, I may name and refer it as Black hole' for, from $P_{(X, Y, z, T)}$ to $Q_{(X, Y, z, T)}$. Here, I may say nature of 'Black hole is theoretically aligned to existing concepts and theories of black hole like general relativity and deep space observations and Schwarzschild radius. While the partial nature of the Black hole' can be matched with event horizon of the black, It shall require more research to exactly define and name the Black hole'and(Singularity' (b h))which are pending for future research. The nature presented here for beyond the 'Black hole and beyond the Black hole', these beyond nature shall require more research to exactly define and name which is pending for future research (As for the opposite nature it may not be appropriate to name as black). Here purpose of this "Phenomena of nature of black hole and beyond" is to align as such black holelike nature of space for "Dimension of Observable Universe and beyond" to existing naming, concepts and theories of the black hole. In "Phenomena of nature of black hole and beyond" here, it will be too early for me to call and name as such natureas the "black hole". But better I call and name such natureas the"black holelike nature". And for exact definition, nam-

ing and theory, I may keep open for research paper coming in the future. In my research here I may keep limited use of "Phenomena of nature of black hole and beyond" for concept and naming to refer existing theories of singularity.

20   Gravity and Gravitational Force

Before we learn about Gravity and Gravitation Force, let us recall GODEYE Model to define GODEYE Model Flow, GODEYE Model Transformation, and GODEYE Model Force. GODEYE Model and When Act is Flow, it is called GODEYE Model Flow. GODEYE Model Flow defined as "the object itself has perpendicular outward and perpendicular inward Flow, and the each unit element of the main object has perpendicular outward and perpendicular inward Flow at the same moment of the time". GODEYE Model and When Act is Transformation, it is called GODEYE Model Transformation. GODEYE Model Transformation (X' formation) defined as "the object itself has perpendicular outward and perpendicular inward Transformation (X' formation), and the each unit element of the main object has perpendicular outward and perpendic-

ular inward Transformation (X' formation) at the same moment of the time". GODEYE Model and When Act is Force, it is called GODEYE Model Force. GODEYE Model Force defined as "the object itself has perpendicular outward and perpendicular inward Force, and the each unit element of the main object has perpendicular outward and perpendicular inward Force at the same moment of the time".

20.1 Edition 2022

InFigure 20 1, I am applying above GODEYE Models to define Gravity and Gravitation Force. FromFigure 20 1, I define Gravity and Gravitation Force, and describes scope of gravity and its force as under.

20.1.1 Gravity (Edition 2022)
Definition of Gravity:
Transformation/Flowing of energy following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravity.

Definition of Anti-Gravity:
Transformation/Flowing of energy following 'GODEYE MODEL Transformation/Flow' from Dimension
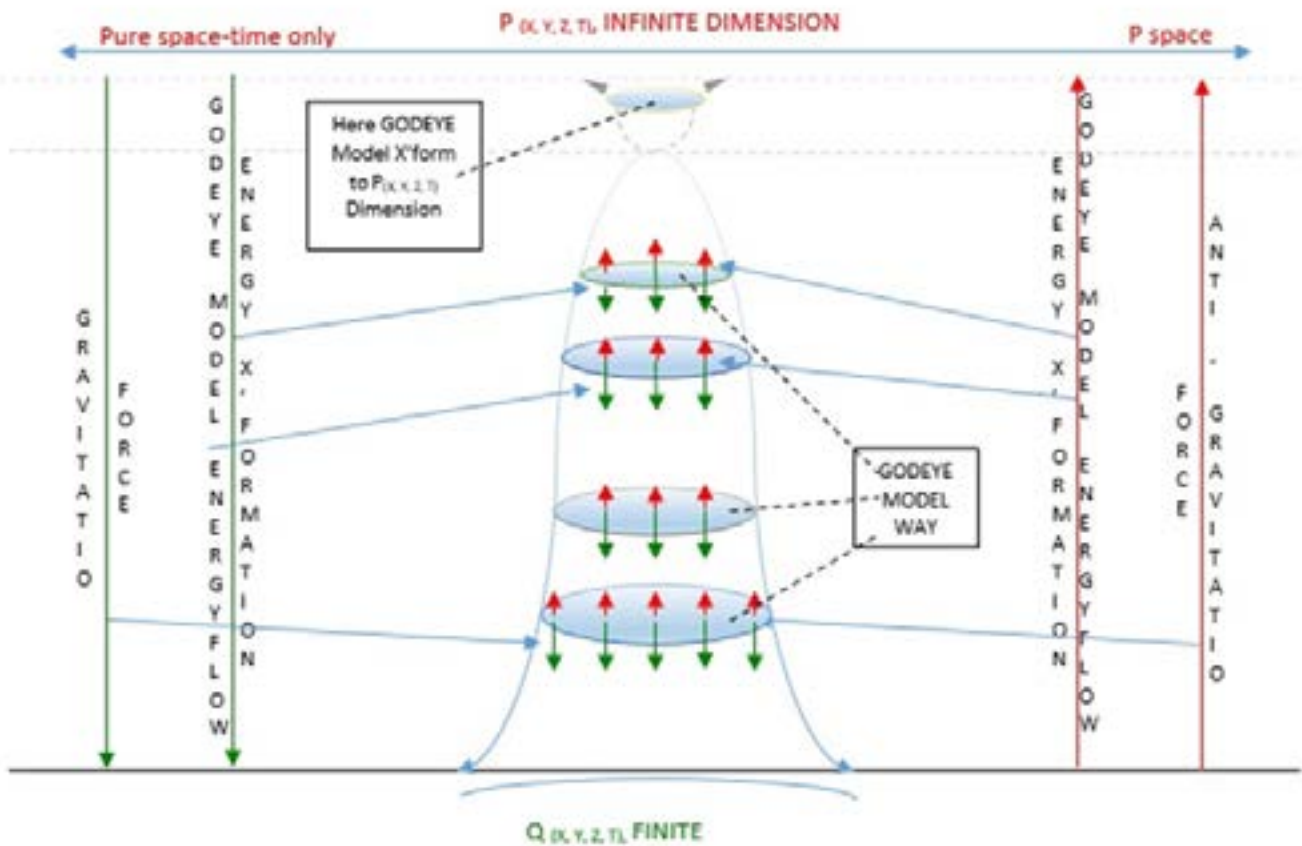

Figure 20 1:
Phenomena of Gravity (Edition 2022)

$Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is called Anti-Gravity.

20.1.2 Gravitation Force (Edition 2022)

Definition of Gravitational Force:
Force applicable for transformation/flowing of energy following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravitational Force.

Definition of Anti-Gravitational Force:
Force applicable for transformation/flowing of energy following 'GODEYE MODEL Transformation/Flow' from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is Anti-Gravitational Force.

20.2 Edition 2024

20.2.1 Gravity (Edition 2024)
Definition of Gravity:
Transformation/Flowing of energy& mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravity.

Definition of Anti-Gravity:
Transformation/Flowing of energy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is called Anti-Gravity.

20.2.2 Gravitation Force (Edition 2024)
Definition of Gravitational Force:
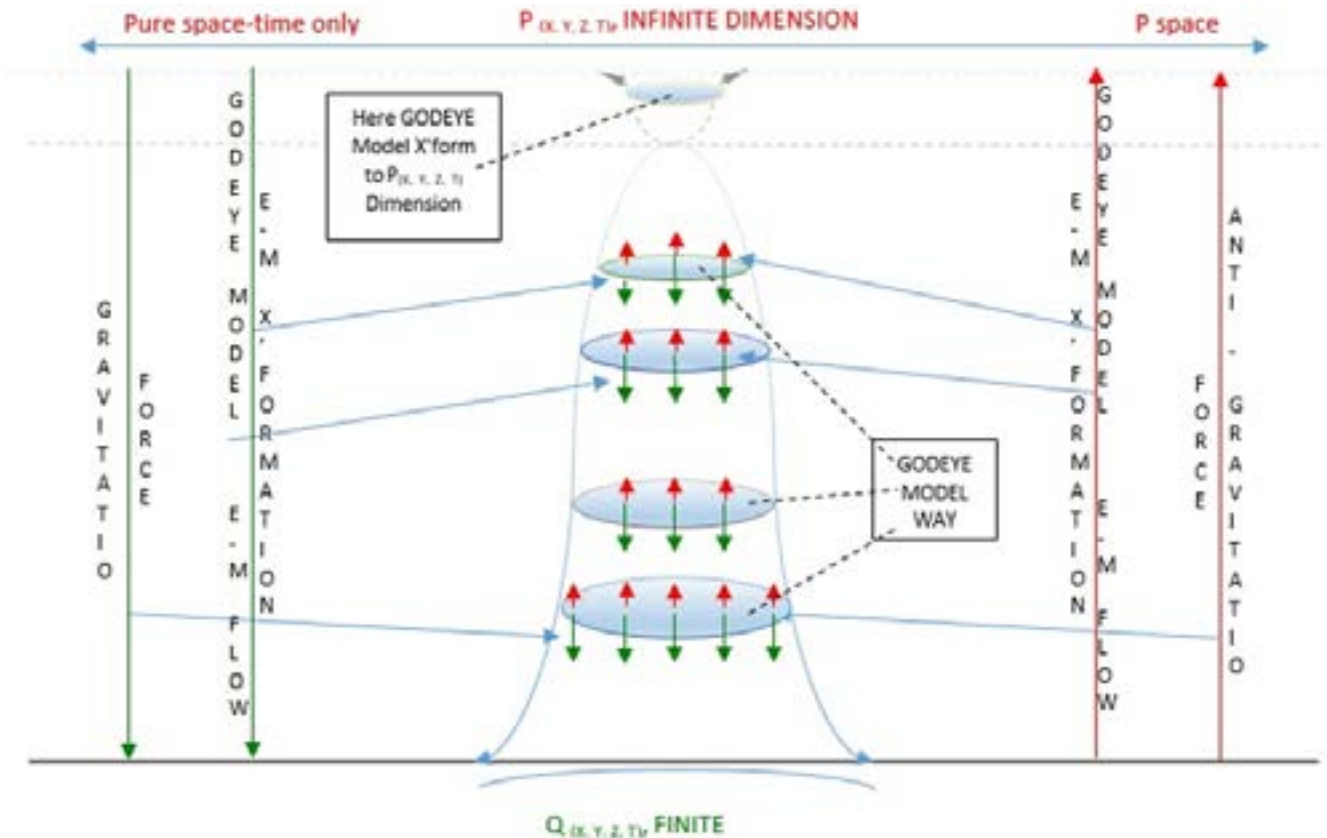Force applicable for transformation/flowing of en-

Figure 20 2:
Phenomena of Gravity (Edition 2024)

InFigure 20 2, I am applying above GODEYE Models to define Gravity and Gravitation Force. FromFigure 20 2, I define Gravity and Gravitation Force, and describes scope of gravity and its force as under.

ergy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravitational Force.

Definition of Anti-Gravitational Force:
Force applicable for transformation/flowing of en-

ergy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is Anti-Gravitational Force.

20.3 Scope of the Gravity

Gravity is the continuous effect on each and every element 'from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$' and 'from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$'. Gravity applies to all the objects including Space, CMB, Multi universe,COSMOS, Universe, Galaxy, Black hole, Star, planet, atomic, sub atomic, fundamental particles, Quantum particles and everything which exist between Dimension $P_{(X, Y, Z, T)}$ and Dimension $Q_{(X, Y, Z, T)}$. Gravity works on each and every object(s), each and every element(s) for all the time and everywhere.

21 Universe Expansion and Contraction

The phenomena of universe expansion and contraction is the change happening in universe volume itself. Which is happening due to space elements and matter elements transformation. With reference to $Q_{(X, Y, Z, T)}$,the expansion and contraction of the Universe are explained as under. As per 'Space Transformation Law (First Law)' and 'Space-Matter Transformation Law (Second Law)', While'Matter elements (MS_{UE})' transform to 'C space elements (CS_{UE})' transform to 'V space elements (VS_{UE})' transform to 'I space elements (ISUE)' transform to 'P space elements (PS_{UE})' While 'M space (MS)' transform to 'C space (CS)' transform to 'V space (VS)' transform to 'I space (IS)' transform to 'P space (PS)'. This is called phenomena of 'expansion of the universe'.

And

As per 'Space Transformation Law (First Law)' and 'Space-Matter Transformation Law (Second Law)', While 'P space elements (PS_{UE})' transform to 'I space elements (IS_{UE})' transform to 'V space elements (VS_{UE})' transform to 'C space elements (CSUE)' transform to 'Matter elements (MS_{UE})' While 'P space (PS)' transform to 'I space (IS)' transform to 'V space (VS)' transform to 'C space (CS)' transform to 'Matter space (MS)'.This is called phenomena of 'contraction of the universe'.

22 Dimension of Observable Universe and beyond

Everything that exist within observable universe[44] and beyond,all fall within range of $P_{(X,Y,Z,T)}$ and $Q_{(X,Y,Z,T)}$.Thus the dimension $P_{(X, Y, Z, T)}$ -$Q_{(X, Y, Z, T)}$ togeth-er called as the 'dimension of totality of existence' or 'dimension of observable universe and beyond'. It is the dimension of space-time and beyond. It is the dimension of 'totality of existence ofuniverse and existenceof beyond'. It is'end to end dimension' everything that exist and that non-exist, fall within this dimension. We can also called it as the 'finite-infinite dimension'.

23 Mathematical form of Nature of Space and Dimension of Observable Universe and beyond

The "Nature of Space and Dimension of Observable Universe and beyond"is represented in basic mathematical form as under.
$P(S) + I(S) + V(S) + C(S) + M(S) = G_pP(T) + G_II(T) + G_VV(T) + G_CC(T) + G_MM(T)$ Mf.23 1

"Or"

$^P(S) + {}^I(S) + {}^V(S) + {}^C(S) + {}^M(S) = GP^P(T) + GI^I(T) + GV^V(T) + GC^C(T) + GM^M(T)$ Mf.23 2

"Or"

P(space) + I(space) + V(space) + C(space) + M(space) = GPP(tensor) + GII(tensor) + GVV(tensor) + GCC(tensor) + GMM(tensor)
Mf.23 3

"Or"

$^P(space) + {}^I(space) + {}^V(space) + {}^C(space) + {}^M(space) = GP^P(energy$-mass tensor) + $GI^I(ener$-gy-mass tensor) + $GV^V(energy$-mass tensor) + $GC^C(energy$-mass tensor) + $GM^M(energy$-mass tensor)   Mf.23 4

Where,

P(S), $^P(S)$, $^P(space)$, represent the physical structure (GE Geometric structure) of PS.
I(S), $^I(S)$, $^I(space)$, represent the physical structure (GE Geometric structure) of IS.
V(S), $^V(S)$, $^V(space)$, represent the physical structure (GE Geometric structure) of VS.
C(S), $^C(S)$, $^C(space)$, represent the physical structure (GE Geometric structure) of CS.
M(S), $^M(S)$, $^M(space)$, represent the physical structure (GE Geometric structure) of MS.

And,

P(T), $^P(T)$, $^P(tensor)$,represent the energy-mass tensor of PS.
I(T), $^I(T)$, $^I(tensor)$,represent the energy-mass tensor of IS.
V(T), $^V(T)$, $^V(tensor)$,represent the energy-mass tensor of VS.
C(T), $^C(T)$, $^C(tensor)$,represent the energy-mass

tensor of CS.

M(T), ^{M}(T), ^{M}(tensor),represent the energy-mass tensor of MS.

And,

GP,represents the Energy & Mass Transformation/flow Value of unit element in PSplane or Unit Value of Energy & Mass Transformation/flow of unit element in PS plane. GI,represents theEnergy & Mass Transformation/flow Value of unit element in IS plane or Unit Value of Energy & Mass Transformation/flow of unit element in IS plane. GV,represents theEnergy & Mass Transformation/flow Value of unit element in VS plane or Unit Value of Energy & Mass Transformation/flow of unit element in VS plane. GC,represents theEnergy & Mass Transformation/flow Value of unit element in CS plane or Unit Value of Energy & Mass Transformation/flow of unit element in CS plane. GM,represents theEnergy & Mass Transformation/flow Value of unit element in MS plane or Unit Value of Energy & Mass Transformation/flow of unit element in MS plane. Alternatively the basic mathematical formMf.23 1, also can be represented through the basic math-schematic form for easier understanding. Before I represent the basic mathematical form Mf. 23 1in basic math-schematic form, it is necessary to present such a basic math-schematic

V(S)$_{UE}$, represents the physical structure (GE Geometric structure) of Vibrating space unit element. C(S)$_{UE}$, represents the physical structure (GE Geometric structure) of Charged space unit element. M(S)$_{UE}$, represents the physical structure (GE Geometric structure) of Matter space unit element. So, the basic math-schematic form inFigure 23 1represents for unit elements only. The LHS of the basic math-schematic formshows the physical structural (GE Geometric structural) existence of the unit elements and its transformation from one form to another form in the sequence. The RHS of the basic math-schematic formshows the energy-mass existence of the unit elements and its transformation/flow from one form to another form in the sequence. Now we integrate the unit elements respectivelyand we obtain the result, P(S) as the integration of P(S)$_{UE}$, I(S) as the integration of I(S)$_{UE}$,V(S) as the integration of V(S)$_{UE}$,C(S) as the integration of C(S) UE,and M(S) as the integration of M(S)$_{UE}$. And, ePS as the integration of ePS$_{UE}$,eIS as the integration of eIS$_{UE}$,eVS as the integration of eVS$_{UE}$,eCS as the integration of eCS$_{UE}$,and eMS as the integration of eMS$_{UE}$. And, mPS as the integration of mPS$_{UE}$,mIS as the integration of mIS$_{UE}$,mVS as the integration of mVS$_{UE}$,mCS as the integration of mCS$_{UE}$,and mMS as the integration of mMS$_{UE}$. Finally with these integrated physical forms, the
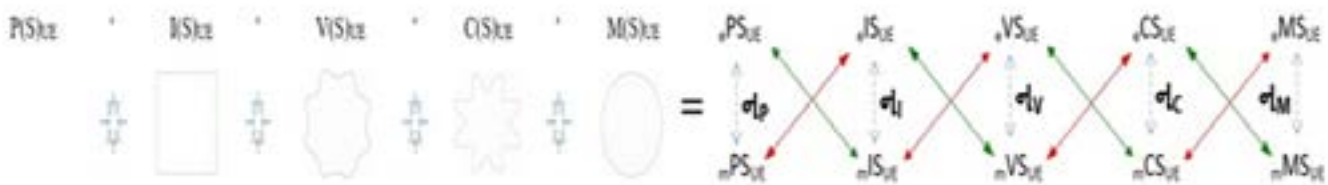

Figure 23 1:
Unit element math-schematic form for Nature of Space of Dimension of Observable Universe and beyond

form for unit element as shown in Figure 23 1.

Where,

P(S)UE, represents the physical structure (GE Geometric structure) of Pure space unit element. I(S)UE, represents the physical structure (GE Geometric structure) of Invisible space unit element.

basic mathematical form Mf. 23 1isrepresented in basic math-schematic formas shown in Figure 23 2. So, thebasic math-schematic forminFigure 23 2represents the space at large scale dimension which is the "Dimension of Observable Universe and beyond". The LHSof the basic math-schematic form shows

1https://en.wikipedia.org/w/index.php?title=Sides_of_an_equation&oldid=1199332188, Accessed 8 September, 2024.
2https://en.wikipedia.org/w/index.php?title=Sides_of_an_equation&oldid=1199332188, Accessed 8 September, 2024.

the physical structural (GE Geometric structural) existence of the space in different forms(-types) and its physical structural (GE Geometric structural) transformation from one form to another form in the sequence. So, this is-physical structural (GE Geometric structural) form of the space or can say space is in physical structural (GE Geometric structural) form. The RHSof the basic math-schematic form shows the energy-mass existence of the space in different forms (types)and its transformation/flow in the sequence.So, this is energy-mass form of the space or can say space is in energy-mass form. Finally, the meaning of the basic mathematical formMf.23 1 is explained as under. In basic mathematical formMf.23 1, The LHS of the basic mathematical form shows physical structural (GE Geometric structural) form of the space and physical structural (GE Geometric structural) transformation of the space from one form to another form. The RHS of the basic mathematical form shows energy-mass form of the space and energy-mass transformation of the space from one form to another form. The,

PS, IS, VS, CS, MS are different forms (types) of the space.

$P(S)$, $I(S)$, $V(S)$, $C(S)$, $M(S)$ are different physical structural (GE Geometric structural) forms (types) of the different forms (types) of the space. $P(T), I(T), V(T), C(T), M(T)$ aredifferentenergy-mass tensors of the different forms (types) of the space. As shown in basic math-schematic formFigure 23 2, ePS-mPS(e-mPS) is the energy-mass of the PS or energy-mass form of the PS and in basic mathematical formMf.23 1$P(T)$ is the tensor for/of the e-mPS.And eIS-mIS(e-mIS) is the energy-mass of the ISor energy-mass form of the IS and in basic mathematical form Mf.23 1$I(T)$ is the tensor for/of the e-mIS.AndeVS-mVS (e-mVS) is the energy-mass of the VSor energy-mass form of the VS and in basic mathematical formMf.23 1$V(T)$ is the tensor for/ofthe e-mVS.AndeCS-mCS(e-mCS) is the energy-mass of the CSor energy-mass form of the CS and in basic mathematical form Mf.23 1$C(T)$ is the tensor for/of the e-mCS.AndeMS-mMS(e-mMS) is the energy-mass of the MSor energy-mass form of the MS and in basic mathematical form-Mf.23 1$M(T)$ is the tensor for/of the e-mMS. Thebasicmathematicalform Mf.231worksandsays, Any change in energy-mass of the space trans-

forms the physical structure (GE Geometric structure) of the space and any change in physical structure (GE Geometric structure) of the space transforms energy-mass of the space. Change in different physical structure (GE Geometric structure)of the space causes change in energy-mass of the space. Change in different energy-mass of the space causeschange in physical structure (GE Geometric structure) of the space. The rate of change in $P(S)$, $I(S)$, $V(S)$, $C(S)$, $M(S)$ define & control the rate of change of e-mPS, e-mIS, e-mVS, e-mCS, e-mMS. The rate of change in e-mPS, e-mIS, e-mVS, e-mCS, e-mMS define & control the rate of change of $P(S)$, $I(S)$, $V(S)$, $C(S)$, $M(S)$. Here, the resulted rate of change of energy-mass is defined by GP,GI,GV,GC, GM forthe PS, IS, VS, CS, MS respectively. The values of GP,GI,GV,GC, GM are defined and controlled by the values of the rate of change in $P(S)_{UE}$, $I(S)_{UE}$, $V(S)_{UE}$, $C(S)_{UE}$, $M(S)_{UE}$ respectively. And the values of rate of change in $P(S)_{UE}$, $I(S)_{U}E$, $V(S)_{UE}$, $C(S)_{UE}$, $M(S)_{UE}$ are defined and controlled by the values ofe-m$P(S)_{UE}$, e-m$I(S)_{UE}$, e-m$V(S)_{UE}$, e-m$C(S)_{UE}$, e-m$M(S)_{UE}$ respectively. Alternatively it says, the values of GP,GI,GV,GC, GM are defined and controlled by the unit values of $P(S)$ UE, $I(S)_{UE}$, $V(S)_{UE}$, $C(S)_{UE}$, $M(S)_{UE}$ respectively. Here the rate of change, function and values of-$P(S)_{UE}$, $I(S)_{UE}$, $V(S)_{UE}$, $C(S)_{UE}$, $M(S)_{UE}$ willbe obtained by expanding mathematical definition of transformation factor"P" , "I" , "V" , "C" , "M"and it is pending for research paper coming in near or far future. And subsequently mathematical value of GP,GI,GV,GC, GM willbe derivedand it is pending for research paper coming in near or far future. The basic mathematical formMf.23 1results, "Transformation of physical structure (GE Geometric structure) of the space causes transformation of energy-mass of the space. And transformation of energy-mass of the space causes transformation of physical structure (GE Geometric structure) of the space". "According to change in $P(S)$, $I(S)$, $V(S)$, $C(S)$, $M(S)$ the change in e-mPS, e-mIS, e-mVS, e-mCS, e-mMS happen. And According to change in e-mPS, e-mIS, e-mVS, e-mCS, e-mMS the change in $P(S)$, $I(S)$, $V(S)$, $C(S)$, $M(S)$ happens." "These changes constitute different types of space like PS, IS, VS, CS, MS. These changes exhibits 'creation & destruction or illusion of creation & destruction' of different types of space like PS, IS, VS, CS, MS, But actuallyit is transformation of

space from one form to another form in sequence". "PS is the ultimate truth and eternal. The rest IS, VS, CS, MS are transformed forms of PS and emerged out of the PS and the rest IS, VS, CS, MS transform back to the PS".

24   Results and Discussion

The first research titled "Nature of Space and Dimension of Observable Universe and beyond"[1], already answers with "Dimension of Observable Universe and beyond", space definition, space transformation, space-matter transformation, transformation laws, gravity and gravitation force. This research is in continuation to more advance the research on the same subject. So, this research "Basic Mathematical form Of Nature of Space and Dimension of Observable Universe and beyond", mainly results the advance theory of space, advance definition of space, advance definition of type of space, basic define energy-mass transformation, basic define gravity and gravitation force. Finally, the key result is the basic mathematical form of "Nature of space and Dimension of Observable Universe and beyond". In Summary this continuous research explains the key results as under.

1.   space and matter

In this research the space is defined at advance level with 'fundamental space element' or 'quanta of the space' for different type of space and the matter is defined at advance level with 'fundamental matter element' or 'quanta of the matter' for the Matter space. Fundamental element in PS plane or space quanta in PS plane is,

$$PS_{UE} = P'S_{UE} + {}'IS_{UE} + {}''VS_{UE} + {}'''CS_{UE} + {}''''MS_{UE} \qquad \text{Mf.24 1}$$

Fundamental element in IS plane or space quanta in IS plane is,

$$IS_{UE} = PS'_{UE} + I'S_{UE} + {}'VS_{UE} + {}''CS_{UE} + {}'''MS_{UE} \qquad \text{Mf.24 2}$$

Fundamental element in VS plane or space quanta in VS plane is,

$$VS_{UE} = PS''_{UE} + IS'_{UE} + V'S_{UE} + {}'CS_{UE} + {}''MS_{UE} \qquad \text{Mf.24 3}$$

Fundamental element in CS plane or space quanta in CS plane is,

$$CS_{UE} = PS''{}'_{UE} + IS''_{UE} + VS'_{UE} + C'S_{UE} + {}'MS_{UE} \qquad \text{Mf.24 4}$$

Fundamental element in MS plane or matter quanta in MS plane is,

$$MS_{UE} = PS''''_{UE} + IS'''_{UE} + VS''_{UE} + CS'_{UE} + M'S_{UE} \qquad \text{Mf.24 5}$$

Here, PS_{UE}, IS_{UE}, VS_{UE}, CS_{UE} are the fundamental space elements. And MS_{UE} is the fundamental matter element. The fundamental element state where 'CS_{UE} transforms to MS_{UE}' and 'MS_{UE} transforms to CSUE' exhibits duality state of space and of matter. And, PS, IS, VS, CS are the space at classical scale and MS is the matter at classical scale.

2.   Higher dimension or Extra dimension

In Figure 6 1 and Figure 7 1, Dimension of 'Pure space (PS)' or 'PS plane' is $PS_{(t,x,y,z)}$. Dimension of 'Invisible space (IS)' or 'IS plane' is $IS_{(t, x, y, z)}$. Dimension of 'Vibrating space (VS)' or 'VS plane' is $VS_{(t, x, y, z)}$. Dimension of 'Charged space (CS)' or 'CS plane' is $CS_{(t, x, y, z)}$. Dimension of 'Matter space (MS)' or 'MS plane' is $MS_{(t, x, y, z)}$. All these above dimensions together represent the concept of higher dimension and/or extra dimension. Where $PS_{(t,x,y,z)}$ is the infinite and eternal dimension, and rest are transient dimensions of $PS_{(t, x, y, z)}$. At any time when transient state is IS the dimension $Q_{(t, x, y, z)}$ is the same as $IS_{(t, x, y, z)}$. At any time when transient state is VS the dimension $Q_{(t, x, y, z)}$ is the same as VS(t, x, y, z). At any time when transient state is CS the dimension $Q_{(t, x, y, z)}$ is the same as $CS_{(t, x, y, z)}$. At any time when transient state is MS the dimension $Q_{(t, x, y, z)}$ is the same as $MS_{(t, x, y, z)}$. In short we can call this as the 'end to end dimension' which is '$P_{(t, x, y, z)}$- $Q_{(t, x, y, z)}$'. And '$P_{(t, x, y, z)}$ - $Q_{(t, x, y, z)}$)' called as the "Dimension of Observable Universe and beyond".

3.   Energy, Mass, and Energy-Mass relationship

Energy, in this research the energy is identified at advance level with 'energy quanta' or 'energy of the fundamental space element' for the different type of space. And the energy is identified at advance level with 'energy quanta' or 'energy of the fundamental matter element' for the Matter space. Energy of fundamental element in PS plane or Energy quanta in PS plane is,

ePS_{UE} = $eP'S_{UE}$ + $e'IS_{UE}$ + $e''VS_{UE}$ + $e'''CS_{UE}$ + $e''''MS_{UE}$ Mf.24 6

Energy of fundamental element in IS plane or Energy quanta in IS plane is,
$eISUE$ = ePS'_{UE} + $eI'S_{UE}$ + $e'VS_{UE}$ + $e''CS_{UE}$ + $e'''MS_{UE}$ Mf.24 7

Energy of fundamental element in VS plane or Energy quanta in VS plane is,
$eVSUE$ = ePS''_{UE} + eIS'_{UE} + $eV'S_{UE}$ + $e'CS_{UE}$ + $e''MS_{UE}$ Mf.24 8

Energy of fundamental element in CS plane or Energy quanta in CS plane is,
eCS_{UE} = ePS'''_{UE} + eIS''_{UE} + eVS'_{UE} + $eC'S_{UE}$ + $e'MS_{UE}$ Mf.24 9

Energy of fundamental element in MS plane or Energy quanta in MS plane is,
eMS_{UE} = ePS''''_{UE} + eIS'''_{UE} + eVS'_{UE} + eCS'_{UE} + $eM'S_{UE}$ Mf.24 10

And,
Energy of the PS isePS or classical scale energy of PS is ePS.
Energy of the IS iseIS or classical scale energy of IS iseIS.
Energy of the VS is eVS or classical scale energy of VS is eVS.
Energy of the CS is eCS or classical scale energy of CS is eCS.
Energy of the MS iseMS or classical scale energy of MS is eMS.
Mass, in this research the mass is identified at advance level with 'mass quanta' or 'mass of the fundamental space element' for the different type of space. And the mass is identifiedat advance level with 'mass quanta' or 'mass of the fundamental matter element' for the Matter space.
Mass of fundamental element in PS plane or Mass quanta in PS plane is,

mPS_{UE} = $mP'S_{UE}$ + $m'IS_{UE}$ + $m''VS_{UE}$ + $m'''CS_{UE}$ + $m''''MS_{UE}$ Mf.24 11

Mass of fundamental element in IS plane or Mass quanta in IS plane is,
mIS_{UE} = mPS'_{UE} + $mI'S_{UE}$ + $m'VS_{UE}$ + $m''CS_{UE}$ + $m'''MS_{UE}$ Mf.24 12

Mass of fundamental element in VS plane or Mass quanta in VS plane is,
mVS_{UE} = mPS''_{UE} + mIS'_{UE} + $mV'S_{UE}$ + $m'CS_{UE}$ + $m''MS_{UE}$ Mf.24 13

Mass of fundamental element in CS plane or Mass quanta in CS plane is,
mCS_{UE} = mPS'''_{UE} + mIS''_{UE} + mVS'_{UE} + $mC'S_{UE}$ + $m'MS_{UE}$ Mf.24 14

Mass of fundamental element in MS plane or Mass quanta in MS plane is,
mMS_{UE} = mPS''''_{UE} + mIS'''_{UE} + mVS''_{UE} + mCS'_{UE} + $mM'S_{UE}$ Mf.24 15

And,
Mass of the PS is mPS or classical scale mass of PS is $_m$PS.
Mass of the IS ismIS or classical scale mass of IS ismIS.
Mass of the VS is mVS or classical scale mass of VS is $_m$VS.
Mass of the CS is mCS or classical scale mass of CS is $_m$CS.
Mass of the MS is mMS or classical scale mass of MS is $_m$MS.
Energy-mass relationship,Fundamental element level energy-mass relationship is described by schematics as in Figure 16 3 and Figure 23 1.Here, Energy and mass are the physical properties of unit elements. As unit element transforms from one 4D plane to another 4D plane its energy and mass transform too respectively and accordingly. It means one form of energy transforms to another form of energy and one form of mass transforms to another form of mass. It also says energy transforms the mass and mass transforms the energy. Likewise, Classical scale energy-mass relationship is described by schematic as in Figure 23 2. The relationship between energy and mass is described by transformation factor. In each 4D plane the 'quantity and nature' of 'energy and mass' of unit element 'vary and change' according to transformation factor "P" ,"I" ,"V" ,"C" ,"M". So, Transformation factor has much broad meaning with 'quantity and nature' of 'energy and mass' is the transformation factor, it is variable. It is applicable to photon and applicablebeyond the photon,it is applicable to wave-particle duality and applicable beyond the wave-particle duality, is applicable for "Dimension of Observable Universe and beyond".

4.   Gravity

In this research the gravity is defined at basic level for 'fundamental space element' or for 'quanta of the space' of the different type of space and for 'fundamental matter element' or for 'quanta of the matter' of the Matter space and for classical scale of the observable universe and for classical scale of beyond the observable universe. The scope of the gravity covers everything. The gravity is defined for everything.

Definition of Gravity:

Transformation/Flowing of energy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravity.

Definition of Anti-Gravity:

Transformation/Flowing of energy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is called Anti-Gravity.

Definition of Gravitational Force:

Force applicable for transformation/flowing of energy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $P_{(X, Y, Z, T)}$ to Dimension $Q_{(X, Y, Z, T)}$ is called Gravitational Force.

Definition of Anti-Gravitational Force:

Force applicable for transformation/flowing of energy & mass (E-M) following 'GODEYE MODEL Transformation/Flow' from Dimension $Q_{(X, Y, Z, T)}$ to Dimension $P_{(X, Y, Z, T)}$ is Anti-Gravitational Force.

5.   True nature of entire existence Or true nature of everything

In Figure 6 1 and Figure 7 1, the 'End to End Dimension' describes entire existence. And,Dimension $Q_{(X, Y, Z, T)}$,shows the existence of the universe. $Q_{(X, Y, Z, T)}$ extended from $MS_{(t, x, y, z)}$ to $CS_{(t, x, y, z)}$, it shows Observable Universe and CMB. $Q_{(X, Y, Z, T)}$ extended from $CS_{(t, x, y, z)}$ to $PS_{(t, x, y, z)}$, it shows existence beyond the observable universe. $Q_{(X, Y, Z, T)}$ extended from $CS_{(t, x, y, z)}$ to $PS_{(t, x, y, z)}$, it shows the existence of space. $Q_{(X, Y, Z, T)}$ extended from $CS_{(t, x, y, z)}$ to $MS_{(t, x, y, z)}$, it shows the existence of matter. So, the Dimension '$P_{(X, Y, Z, T)}$ to $Q_{(X, Y, Z, T)}$'or'End to End' Dimension describes both classical scale existence and fundamental scaleexistence and beyond. It describes true existence of everything. The advance definition of space, space transformation method, space-matter transformation

method, space transformation law, space-matter transformation law, and energy-mass transformation, Altogether demonstrate fundamental nature of entire existence and establishes fundamental relationship between fundamentalelement scaleexistence and classical scale existence within 'finite to infinite dimension'. The energy and mass are the very fundamental propertiesof 'finite-infinite' existence or can say Energy-Mass is the fundamental existence in 'finite-infinite' dimension or can say any existence in 'finite-infinite' can be represented by energy-mass.So, nature of energy, nature of mass, and nature of their relation, describe true nature of everything. Or can say nature of observable universe and beyond is described with physical structure transformation of the space and energy-mass transformation of the space. Nature of space and matter,The $Q_{(X, Y, Z, T)}$ is created from and emerged out from $P_{(X, Y, Z, T)}$. So, the $Q_{(X, Y, Z, T)}$ is the transient dimension of $P_{(X, Y, Z, T)}$.Likewise,$IS_{(t, x, y, z)}$, $VS_{(t, x, y, z)}$, $CS_{(t, x, y, z)}$, $MS_{(t, x, y, z)}$ are created from and emerged out from $P_{(X, Y, Z, T)}$. So, $IS_{(t, x, y, z)}$, $VS_{(t, x, y, z)}$, $CS_{(t, x, y, z)}$, $MS_{(t, x, y, z)}$ are the transient dimensions of $P_{(X, Y, Z, T)}$. This transition of dimensions or transition of 4D planes is the phenomena of emerging or creating of space and matter.But it is actually transformation of space from one form to another form in sequence. And it is transformation of space to matter and v/s. Nature of energy and mass, as each 4D plane has its energy and mass. As the transition of dimensions or transition of 4D planes exhibit the phenomena of emerging or creating of space and matter, there along exhibit the phenomena of emerging or creating of energy and mass.But it is actually transformation of 'energy and mass' from one form to another form in sequence. Nature of Universe,The $Q_{(X, Y, Z, T)}$ is created from and emerged out from $P_{(X, Y, Z, T)}$. So, the $Q_{(X, Y, Z, T)}$ is the transient dimension of $P(X, Y, Z, T)$.Likewise,$IS_{(t, x, y, z)}$, $VS_{(t, x, y, z)}$, $CS_{(t, x, y, z)}$, $MS_{(t, x, y, z)}$ are created from and emerged out from $P_{(X, Y, Z, T)}$. This exhibits the phenomena of emerging or creating of universe. But it is actually transformation of space from one form to another form in sequence. And, The $Q_{(X, Y, Z, T)}$ is destroyed and vanished off into $P_{(X, Y, Z, T)}$.So, the $Q_{(X, Y, Z, T)}$ is the transition back to $P_{(X, Y, Z, T)}$. Likewise,$MS_{(t, x, y, z)}$, $CS_{(t, x, y, z)}$, $VS_{(t, x, y, z)}$, $IS_{(t, x, y, z)}$ are destroyed and vanished off into $P_{(X, Y, Z, T)}$.This exhibit the phenomena of vanishing or destroying of the universe.But it is actually transformation of space

from one form to another form in sequence. Nature of Expansion and Contraction of the Universe,many astrophysicists have presented the phenomena of expansion and contraction of the universe. Inmy research this phenomena can be represented as under. As per 'Space Transformation Law (First Law)' and 'Space-Matter Transformation Law (Second Law)', While 'Matter elements (MS_{UE})' transform to 'C space elements (CS_{UE})' transform to 'V space elements (VSUE)' transform to 'I space elements (ISUE)' transform to 'P space elements (PS_{UE})' While 'M space (MS)' transform to 'C space (CS)' transform to 'V space (VS)' transform to 'I space (IS)' transform to 'P space (PS)'. This is called phenomena of 'expansion of the universe'.
And
As per 'Space Transformation Law (First Law)' and 'Space-Matter Transformation Law (Second Law)', While 'P space elements (PS_{UE})' transform to 'I space elements (IS_{UE})' transform to 'V space elements (VS_{UE})' transform to 'C space elements (CS_{UE})' transform to 'Matter elements (MS_{UE})' While 'P space (PS)' transform to 'I space (IS)' transform to 'V space (VS)' transform to 'C space (CS)' transform to 'Matter space (MS)'. This is called phenomena of 'contraction of the universe'. Nature of black hole,many physicists have presented several concepts and theories of black hole.In this research paper, I do not want to result any black hole for now. But I may say black hole like nature and it is represented by 'Black hole. The "Phenomena of Nature of Black hole and beyond" represents as such nature of black hole by 'Event 1as "involved region of the space ('MS region) and resulted region of the space (CS' region)" which represents existence and nature of the space such as body of the black hole ('Black hole) and event horizon of the black hole ('Black hole), and by 'Event 2as "resulted unit element of the space (CS'UE) (due to 'Event 2) in resulted region of the space (CS' region) (from 'Event 1)" whichrepresents "space-time singularity of the black hole ('Singularity (b h))". Nature of singularity,in different theories the concept of singularity is defined in different ways by astrophysicists. In this research paper, I do not want to result any singularity for now. But I may say singularity like nature and it is represented by"Phenomena of Nature of Singularity". The "Phenomena of Nature of Singularity"represents as such singularity like nature, which is aligned to existing singularity concepts and naming as under.

Gravitational singularity or space-time singularity:

In general relativity, it is described and studied as the Gravitational singularity of the black hole and Space-time singularity of the black hole.In my research it is described by 'Event 2as the "resulted unit element of the space (CS'_{UE}) (due to 'Event 2) in resulted region of the space (CS' region) (from 'Event 1)" whichrepresents "Gravitational singularity of the black hole ('Singularity (b h))" or "space-time singularity of the black hole ('Singularity (b h))" or "space-time singularity in resulted CS' plane('Singularity (b h))".

Initial singularity or Big bang singularity:

In my research here "Initial singularity or Big bang singularity" is also "Gravitational singularity or space-time singularity" but with different state of space-time. This initial singularity or Big bang singularity isdescribed by Event 4'as the "involved unit element of space (VS'_{UE})(due toEvent 4') in involved region of the space (VS' region) (as perEvent 3')".

One dimensional point or one dimensional string:

My research results show thatstate of "one dimensional point or one dimensional string" can be extended and aligned, anywhere and with any state, in the range fromVS$_{UE}$ to IS$_{UE}$ to PS$_{UE.}$ In my research, the Black hole singularity and Initial state or Big Bang Singularity areresulted as under. Singularity (b h)– It is the Gravitational singularity of the Black hole or space-time singularity of the Black hole. Which is described by 'Event 2as the "resulted unit element of the space (CS'_{UE}) (due to 'Event 2) in resulted region of the space (CS' region) (from 'Event 1)". Singularity (I s) or Singularity (B B)– It is the Initial state or the Big bang singularity. Which is described by Event 4'as the "involved unit element of space (VS'_{UE})(due toEvent 4') in involved region of the space (VS' region) (as perEvent 3')". These results show that the Singularity (b h),Singularity (I s) or Singularity (B B)fall in the range state fromCS$_{UE}$to CS$_{UE}$ to VS'UEand v/s. But in my research here nature of singularity is extended much beyond in the form of Singularity (VS),Singularity (IS),and Singularity (PS)which fall in the range state fromVSUE to ISUE to PSUE and v/s. These results show thatstate of "one dimensional point or one dimensional string" can be extended and aligned, anywhere and with

any state, in the range fromVSUE to ISUE to PSUE. But I result these Singularity (VS),Singularity (IS),and Singularity (PS)as under. Singularity (VS)– It is the space-time singularity in VS plane. And it is defined as the elementary space-time of the VS plane. Which is the space-time of the VSUE. Singularity (IS)– It is the space-time singularity in IS plane. And it is defined as the elementary space-time of the IS plane. Which is the space-time of the ISUE. Singularity (PS)– It is the space-time singularity in PS plane. And it is defined as the elementary space-time of the PS plane. Which is the space-time of the PSUE. Nature of dark energy,many astrophysicists have presented the concept of dark energy, in my research here it can be represented by part ofeCSand eVS ,which present major portion of energy of the Observable Universe. Nature of dark matter,many astrophysicists have presented the concept of dark matter, in my research here it can be represented by part of mCS and mVS, which present major portion of mass of the Observable Universe.

6.   Mathematical form for combine true nature of entire existence Or true nature of everything

Entire existence within "End to End Dimension" or Entire existence within "finite to infinite Dimension" or Entire existence of Observable Universe and beyond within "$P_{(X, Y, Z, T)}$-$Q_{(X, Y, Z, T)}$"or Entire existence within "Dimension of Observable Universe and beyond", and its true nature is represented in basic mathematical formMf. 24 16.

$$^P(S) + {}^I(S) + {}^V(S) + {}^C(S) + {}^M(S) = GP^P(T) + GI^I(T) + GV^V(T) + GC^C(T) + GM^M(T) \qquad \text{Mf.24 16}$$

Below discussions on results to emphasize the future research development and to fill the gaps.

1.   space and matter

In Standard Model[8], elementary particles are divided into two groups, elementary fermions and elementary bosons. Here, elementary fermions are the matter particles and the elementary bosons are the force particles. So, the fundamental matter existence is accepted and limited as the quarks and leptons. In my research I do not touch and include any particle existence from standard model yet. In my research the elementary matter particle existence is defined by MS_{UE}. The funda-

mental element status where 'CSUE transforms to MS_{UE}' and 'MS_{UE} transforms to CS_{UE}' exhibits duality nature of space and of matter. The CS_{UE} and MS_{UE}may be much deeperand beyond than the quarks and leptons, The $CS_{UE}$and MS_{UE}may be the same as the quarks and leptons, The $CS_{UE}$and MS_{UE}may bedifferent than the quarks and leptons. But the future research may fill the gaps and unite $CS_{UE}$and $MS_{UE}$with the quarks and leptons or can say unite $CS_{UE}$and $MS_{UE}$with the standard model. And in this research I do not touch elementary bosons in details except limited nature of photon. The mathematical form, schematic form, of $PS_{UE},IS_{UE},VS_{UE,}CS_{UE}$, and $MS_{UE}$are still at very basic level. It requires more development on mathematical form and on scientific form, for these fundamental elements. Also, mathematical form and scientific form, of PS, IS, VS, CS, MS are not included here.It requires the development on mathematical form and scientific form, of these classical scale space and matter.

2.   Higher dimension and/or Extra dimension

In my research here the development of 'end to end dimension' or '$P_{(t, x, y, z)}$ - $Q_{(t, x, y, z)}$',originally happened to accommodate and simplify, everything that exist and that do not exist, or can say to accommodate and simplify, existence of observable universe and beyond. So, the development of 'end to end dimension' or '$P_{(t, x, y, z)}$ - $Q_{(t, x, y, z)}$' just naturally happen without idea of 'higher/extra dimension'.But, $P_{(t, x, y, z)}$ - $Q_{(t, x, y, z)}$ represents the concept of 'higher and/or extra dimension' and It may require to derive exact definition and role of the higher dimension and/or extra dimension. The 'Higher dimension and/or extra dimension' model presented here with '$P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$'may require more development in form of scientific model and mathematical model. The Loop Quantum gravity (LQG), Super symmetry, Super gravity, String theory, Superstring theory, and M-Theory have included 'higher and/or extra' dimensions to describe true nature of everything. Each of them may have 'matching or different','scientific and mathematical model' for higher dimension and/or for extra dimension but the goal is the same. So, the future research may fill the gaps and unite '$P_{(X, Y, Z, T)}$ - $Q_{(X, Y, Z, T)}$' and 'higher and/or extra dimensions' of,Loop Quantum gravity (LQG), Super symmetry, Super gravity, String theory, Superstring theory, and M-Theory,into one accepted dimension.

3. Energy, Mass, and Energy-Mass relation

So far energy and mass are well defined in classical theory, electromagnetic theory, and Planck theory. But for theory of everything where existence in higher dimension and/or extra dimension may require to reconsider, may require extension and may require extended redefinition of energy and mass. Likewise the energy-mass relation is well defined by "$E=mc^2$"but this research and future research may update, may enhance, may redefine the energy-mass relationship. In my research here the "energy quanta' or 'energy of the fundamental space element" and "mass quanta' or 'massof the fundamental space element" are not yet fully defined with scientific forms, mathematical forms, values and units. Likewise, classical scale energy and mass, are not yet fully defined with scientific forms, mathematical forms, values and units. It requires more development on scientific forms, mathematical forms, values and units, for these fundamental level 'energy quanta and mass quanta' and classical level 'energy and mass'.

4. Gravity

Newton's Law of Universal Gravitation and General relativityare two main theories of gravity widely accepted by physicists and both have Gravitational constant (G) in common. Both theories have different approaches, different understandings, and different explanations, to define the gravity. So, there are limitations of both theories. Firstly, It is very important to understand the gravity in perfect way before define the true gravity. The true definition of gravity may overcome the limitations and to unite the true nature of gravity. The theories of Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory subjectedto overcome the limitations and fill the gaps in standard model to unify the true nature of gravity. My research has presented new definition of gravity with its true nature but detailed scientific and mathematical model yet to be developed. Is the gravity only one ultimate force? What is the root of other three fundamental force?What is the foundation for all other forces? Areall other forces derived from one ultimate force? In my research here, I keep discussion open-for, if the gravity defined here may represent ultimate force for all. And rest of all forces are partial representation or limited force effects of the same force, in different dimensionsand in partial dimensions and in limited dimensions. In such a case the gravity defined here may play bigger role than Newton's Law of Universal Gravitation and General relativity and any other force. But more accurate prediction of any as such role I may keep pending for future research.

5. True nature of entire existence Or true nature of everything

There have been several research done to define partially and wholly true nature of everything. But the researches match to my subject are Standard Model, General relativity, Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory. Research of Planck scale, General relativity, Standard model, Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory, all these researches subject to describe explanation of all existence of Universe and of beyond. Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory may claim to explain 100% true nature for existence of observable universe and beyond. But researches are still going on for final acceptance. Nature of, space and matter, of energy and mass, of Universe, of Expansion and Contraction of the Universe, of black hole, of dark energy, of dark matter, and nature of singularity, described here is at very basic level. Nature of black hole,even though the black hole is not a main subject of my research for now, such a nature of the space is already covered here. My research scope is much broader and deeper than concept of the black hole. My research presents nature of the space is much deeper and beyond the black hole. Sothe future research development shall reveal true understanding, true definition and naming if/for any as such nature of the space exist.While black hole and its singularity are not very well known part of the observable universe and beyond, in my research any as such nature is known part for observable universe and beyond.But in my research such a theory of nature is still at basic level and advance theory yet to be developed and that is pending for final research paper coming in near or far future. Nature of dark energy,in my research energy is defined much deeper forthe observable universe and beyond the observable universe. While dark energy is unknown part of the universe, in my research the energy is known for observable uni-

verse and beyond.But in my research such a theory of nature is still at basic level and advance theory yet to be developed and that is pending for final research paper coming in near or far future. Nature of dark matter,in my research matterand mass are defined much deeper forthe observable universe. In my research mass is defined much deeper forthe observable universe and beyond the observable universe. While dark matter is unknown part of the universe, in my research the matter is known part for observable universe. And in my research the mass is known for observable universe and beyond.But in my research such a theory of nature is still at basic level and advance theory yet to be developed and that is pending for final research paper coming in near or far future. Nature of singularity, by many astrophysicists singularity is discussed as one dimensional point which contains huge mass in an infinitely small space, where density and gravity become infinite, and space-time curves infinitely, and as the point where all laws of physics break down. For me such statementsdonot look 100% true scientifically but instead it looks somewhat contradictory.In my research such a theory of nature is still at basic level and advance theory yet to be developed and that is pending for final research paper coming in near or far future. In my research, existence is described much more beyond than any as such existence of singularity. And, nature is described much more beyond than any as such nature of singularity.Research here shows the singularity like existence and nature extended deeper than Singularity (b h) and Singularity (B B), it means Singularity (VS) is deeper than Singularity (b h) and Singularity (B B), and Singularity (IS) is deeper than Singularity (VS),and Singularity (PS) is deeper than Singularity (IS). So, it may be possible to define true nature of everything without defining as such singularity or may be concept of singularity redefined with more advanced scientific and mathematical models.

6. Mathematical form for combine true nature of entire existence Or true nature of everything

There arewell defined scientific model, mathematical modeland mathematical equation by General relativity.There may be well defined scientific models, mathematical models and equations or developments are going on by Loop Quantum gravity (LQG), String theory, Super symmetry, Super gravity and M-Theory for its final acceptance.

Here, my research origination may be different, my research questions may be different, myresearch subject may be different, my approach may be different, my understandingsmay be different, and my goal may be different but the basic mathematical formMf.23 2more matcheswith Einstein field equation (General relativity's equation). My research has presented new scientific model, mathematical model and mathematical form for true nature of everything at basic level but detailed and advancedscientific model, mathematical model and mathematical form yet to be developed and thoseare pending for final research paper coming in near or far future. Final discussion, when we talk about true nature of everything, none of the above (existing) theory as the individual and all together describe entire existence and true nature of entire existence to 100% acceptance. Instead it describes partial existence and partial nature of entire existence to its partial acceptance. Especially, I feel impressed with Loop Quantum gravity (LQG) as it describes space-time as the quanta and quanta mechanics[9], Also, I feel impressed with one dimensional string and extra dimensions[9]. All these research may have some different subject, some different approach, and some difference in final achievement to define true nature of everything. But I believe their goal is the same, so all these valued research can be complimentary to each other towards final acceptation and unification as only one theory of everything. My research has presented new definitions, new methods, and new laws of true nature of everything at basic level. But the detailed and advanced scientific and mathematical model yet to be developed.It shall require more development at classical level and fundamental levelto unite with standard model. And it is pending for final research paper coming in near or far future. My research is continuous research, So, It may be possible that future research may update, may enhance, and may change research results.

25 Conclusions

This theoretical research demonstrates entire existence of the space, energy, mass, matter, universe, and beyond, like what is it? Where does it come from? How does it come? And how does it exist? This entire existence is explained through "end to end dimension" or "Dimension of Observable Universe and beyond".

And, itdemonstrates nature of entire existence, like how does space work? How does matter work? How does it all come? And what is the energy? And what is the mass? And what is the energy-mass relation? And what is the gravity? And how does universe create and destroy? And how does it all exist? And how does it all work together? The nature of entire existence is explained through advance definition of space, advance method space transformation, advance method space-matter transformation, basic method energy-mass transformation and through"end to end dimension" or "Dimension of Observable Universe and beyond". With this new research of space and space-time structure, it simplifies the various theories and concepts of the space as the vacuum, as the empty, as the void, as the isotropic, as the homogeneous, as the Minkowski space, as with space geometry to define shape of the space, as the filled by any medium, as filled with major existence of dark energy, as filled with major existence of dark matter, as the general relativity's continuous space-time fabric, as quanta space-time fabric in Loop Quantum Gravity (LPG), as the extra dimensional in string theoryand unite all these theories and conceptsto one unique space and space-time standard. In fact research here, more correct answers for those previous research done and more answers about any medium like aether, Higgs field, elementary matter, gravity, dark matter, dark energy, and singularity. It adds more value to standard model for existence of fundamental matter particle with true nature. The overall theory presented here for the entire fundamental existence and fundamental nature of the entire existence within "Dimension of Observable Universe and beyond" is still at basic level. So, the overall theoretical explanationofthe entire fundamental existence and fundamental nature of the entireexistence within "Dimension of Observable Universe and beyond" is still at basic level. And finally, the entire fundamental existence and fundamental nature of the entire existence within "Dimension of Observable Universe and beyond" is defined by basic mathematicalform. This basic mathematical form of "Nature of Space of Dimension of Observable Universe and beyond"presented here says, "The space can be described by physical structure and its transformation. The space has two fundamental properties like energy and mass, and space can be described

by energy-mass and its transformation". "Transformation of physical structure (GE Geometric structure) of the space causes transformation of energy-mass of the space. And transformation of energy-mass of the space causes transformation of physical structure (GE Geometric structure) of the space". "These changes constitute different types of space like PS, IS, VS, CS, MS. These changes exhibit 'creation & destruction or illusion of creation & destruction' of different types of space like PS, IS, VS, CS, MS, But it is actually transformation of space from one form to another form in sequence". The theory with mathematical form presents the entire 'elementary scale and classical scale' existence and nature of entire 'elementary scale and classical scale' existence within "Dimension of Observable Universe and beyond" at fundamental level.This basic mathematical form presents true nature of everything at fundamental level. It is the novelty in astrophysics and foundation of entire existence. And itmay play important role to simplify the future development of mathematical model for the theory of everything. While definition of space, "End to End Dimension", space transformation, space-matter transformation, already advanced than previous version. The follow up research may require much more advance theory with values, rules, functions,and scientifically and mathematically. This research being the foundation, will be applied to carry out more research in future. Those include scientific and mathematical,model of space and matter,model for space-matter transformation, model for energy-mass transformation, much advance model of 'end to end' dimension, advanced model of dimension transformation,advance model for universe creation and destruction, advance model of expansion-contraction of space & universe and to advance the definition of gravity, to explain phenomenaof singularity, to explain phenomena of gravity collapse at horizon of black hole,to explain concept of dark matter and to explain concept of dark energy, and to define theory of everything.

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