SYMBOLIC THEORY OF SUPER RELATIVE (OPEN HIGH DIMENSIONS)

DISSERTATION

BY

JIRADEACH KALAYARUAN

A Thesis Submitted in Partial Fulfillment of the Requirements for

Degree of Doctor of Philosophy in Physics Program

At Sakon Nakhon Rajabhat University

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บทคัดย่อ

ดุษฎีนิพนธ์ฉบับนี้ได้ศึกษาเกี่ยวกับระบบพลังงานธรรมชาติในภาพรวมของจักรวาลทั้งหมด พลังงานในระบบธรรมชาตินี้ได้พัฒนาต่อยอดมาจากสมการพลังงานของไอน์สไตน์ ผู้วิจัยได้นำเสนอการค้นพบความคิดใหม่นี้ที่เรียกว่า สถานะมิติพลังงานของแสงระบบคู่ $2n$ และ ระบบคี่ $3n_j$ กรณีนี้พลังงานมิติของแสงดังกล่าวได้พัฒนาต่อยอดมาจากสมการพลังงานสัมพัทธภาพของไอน์สไตน์ ผู้วิจัยได้ประยุกต์ใช้กับผลกระทบของคอมป์ตันในมิติพลังงานของแสงชั้นสูงและได้ใช้สมมติฐานควอนตัมในมิติพลังงานของแสงชั้นสูงโดยผ่านทางสมการของคอมป์ตันในมิติของแสงชั้นสูงด้วย โดยจะขอยกตัวอย่าง อนุภาคจากความคิดใหม่ที่ได้ค้นพบที่เรียกว่า $2n$-photon, ephoton และ $3n_j$-ephoton ประยุกต์ใช้ในสมการของคอมป์ตันในมิติชั้นสูง ทั้งหมดนี้ในกระบวนการคำนวณดังกล่าวได้ค่าความยาวคลื่นที่เรียกว่า ความยาวคลื่นอิเล็กตรอนของคอมป์ตันในสถานะมิติพลังงานของแสงระบบคู่ $2n$, ในสถานะพลังงานสามัญภาพ และในสถานะมิติพลังงานของแสงระบบคี่ $3n_j$ ซึ่งความสัมพันธ์นี้ตั้งแต่เริ่มต้นและท้ายที่สุดของการกระเจิงของมุมนั้นได้แสดงให้เห็นการสังเกตการจากการคำนวณประยุกต์ใช้คอมป์ตันในมิติพลังงานของแสงขั้นสูงนั้น ความยาวของคลื่นจะขึ้นอยู่กับมุมที่กระเจิงตกกระทบและไม่ขึ้นกับความถี่ของคลื่น (หรือความยาวคลื่น) ของการตกกระทบของอนุภาค $2n$-photon, ephoton และ $3n_j$-ephoton ผลลัพธ์ที่ได้แสดงให้เห็นว่าอนุภาค $2n$-photon, ephoton และ $3n_j$-ephoton ในมิติพลังงานของแสงชั้นสูงมีพฤติกรรมเหมือนอนุภาคอิเล็กตรอนคือเป็นทั้งคลื่นและอนุภาค ซึ่งเราสามารถนำไปประยุกต์ใช้ในทฤษฎีสามัญภาพเชิงสัญลักษณ์ในการแปรสภาพสสารของพื้นที่และเวลาในกรณีการเปิดมิติชั้นสูงเป็นเบื้องต้นได้ด้วย ในอนาคตอาจนำทฤษฎีนี้ไปประยุกต์ใช้ในการสร้างเครื่องจักรข้ามเวลาก็อาจเป็นได้

คำสำคัญ: ความยาวคลื่นของคอมป์ตัน สถานะมิติพลังงานของแสง สมมติฐานของจิระเดช สมมติฐานควอนตัมของจิระเดช

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ABSTRACT

This thesis deals with the study of the energy of the nature systems by looking at the overview throughout the universes. The energy of the nature systems was developed from the Einstein's energy equation. The researcher proposed the new ideas called even $2n$ and odd $3n_j$ light dimension energy state systems. In the case of the light dimensions were developed from Einstein's relativity energy theory equation. The researcher applied the new ideas in the Compton effect at high dimensions of light energy state systems and quantum hypothesis in high dimensions by using light energy state system equations. For example, using the particles from new ideas are called $2n$-photon, ephoton and $3n_j$-ephoton for the Compton at high dimensions. In all cases, the equations processed were derived from the wavelength called Compton wavelength of the electron in even $2n$ light dimension energy state systems, Compton wavelength of the electron in super relative energy, and Compton wavelength of the electron in odd $3n_j$ light dimension energy state systems. This relation connects the initial and final wavelengths to the scattering angle Compton's experimental observation at high dimensions revealed that the wavelength depends on the shifting and scattering angle are scattered on the frequency (or wavelength) of the incident $2n$-photon, ephoton and $3n_j$-ephoton. The result showed that $2n$-photon, ephoton and $3n_j$-ephoton at high dimensions behavior as electrons in materials. There was applied symbolic theory of Super Relative to begin transformation of matter into open space and time in the high dimensions. In the future, these findings may be used to the innovation called the "time machine."

Keywords: Compton wavelength of the electron; dimension energy state systems, Jiradeach's hypothesis, Jiradeach's quantum hypothesis in high dimensions

STATION SYMBOLICS

The following defines the symbolics used in this desertation.Page numbers refer to the first appearance of each symbolic.

Symbolic	Description	Page
even *2n*	even two *n* dimensions (n = 1, 2, ..., ∞)	5
odd $3n_j$	odd three n_j dimensions (n_j = 1, 3, 5,...,2j–1, $j \geq 1$)	5
E_{2n-sys}	the even *2n* light dimension energy state systems	5
m_{2n-sys}	the mass energy of the even 2*n* light dimension	5
c_n^{2n}	the speed of light in power 2*n* in *n* dimensions	5
E_{3n_j-sys}	the odd $3n_j$ light dimension energy state systems	5
m_{3n_j-sys}	the mass energy of the odd $3n_j$ light dimension	6
$c_{n_j}^{3n_j}$	the speed of light in power $3n_j$ in n_j dimensions	6
k	the perturbation of the ether energy	11
k_e	the constant of the behavioral light ether dimension	12
E_{e-sys}	the ether energy system	12
E_t	super relative energy explain from tao	13
$\frac{i}{c}$	yang	13
$\frac{-i}{c}$	yin	13
k_{n_j}	the perturbation ether energy state system in n_j dimension (n_j = 1, 3, 5,...,2j–1, $j \geq 1$)	16
v_{3n_j-sys}	velocity in odd $3n_j$ light dimension	16
$k_{3n_j-ether}$	the constant of the behavioral condition light ether odd $3n_j$ light dimension	17
h	The Planck constant	19
λ_c	the Compton wavelength	21
p_{2n}	the momentum in even 2*n* light dimension	42

Symbolic	Description	Page
$\vec{p}'_{e-2n}$	the *2n* photon scatters with a momentum in even 2*n* light dimension	42
$\vec{p}_{e-2n}$	a momentum in even 2*n* light dimension	42
p	the momentum in super relative energy	46
$\vec{p}'$	the ephoton scatters with a momentum in super relative energy	46
$\vec{p}_e$	the electron recoils with a momentum in super relative energy	46
λ_{C-S}	the Compton wavelength of the electron in super relative energy	49
p_{3n_j}	the momentum in odd $3n_j$ light dimension	50
$\vec{p}'_{e-3n_j}$	the $3n_j$ ephoton scatters with a momentum in odd $3n_j$ light dimension	50
$\vec{p}_{e-3n_j}$	the electron recoils with a momentum in odd $3n_j$ light dimension	50
λ_{C-3n_j}	the Compton wavelength of the electron in odd $3n_j$ light dimension	53

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CHAPTER 1

INTRODUCTION

This chapter consists of 5 topics which are; viz; rationale and motivation; research objectives; anticipated outcomes of the thesis; dissertation structure; and references.

Rationale and Motivation

Humans use language as a tool for explaining, thinking, communicating and learning (Heidegger, 1971; Bradshaw, & Rogers, 1992; Ponting, 1993; Pagel, 2009). Communication consists of both tangible and intangible factors. The use of language is an undeniably important tool for communication. Humans use language to explain natural phenomena (Poplack, Wheeler, & Westwood, 1989; Krashen, 2003; Mcneill, 2009). Theoretical physics has continually progressed. Theoretical physics and the theory of quantum mechanics (Iwamoto & Yamada, 1957; Srebrenik, & Bader, 1975; Ballentine, 1998; Shapiro, & Brumer, 2003; Kaminski, Stern, Berne, & Friesner, 2004), led to the theories of special relativity (Einstein, 1923; Sinnott, 1981; Saathoff, et al 2003; Bohm, 2015) and general relativity. These two theories (Moyer, 1979; Rovelli, 2000; Smolin, & Harnad, 2008; Russell, 2009; Einstein, 2013) affect the understanding of natural systems and have been developed by scientists who played important roles in physics research (Stepan, 1982; Gardner, 1987; Bainbridge, 2013; Pentland, 2014). Noted physicists include Albert Einstein (1879–1955), Sir Isaac Newton (1643–1727), and James Clerk Maxwell (1831–1879).

Albert Einstein explained natural systems using physics. In Einstein's theory of relativity (Fölsing, 1997; Miller, 1998; Einstein, 2007; Einstein, 2013), energy is described using the equation (Greene, Dewey, Kessler, & Fischbach, 1991; Reitsma, Cairns, Bingham, & Jaroszynski, 2005; Ohanian, 2009; Mermin, 2011),

$$E = mc^2 \quad (1)$$

where E = the relative energy of a system

m = the mass of the system, photon mass (m_p = 1.672621×10^{-27} kg),

c = the speed of light (c = 299,792,458 m/s) (Felder, 2005)

Einstein showed relation between energy, mass, and speed of light in 1905. He sought energy value generally in nature system that light speed has the source from way system though the philosophy of Einstein himself. By m in philosophy system is mind (it is reminder that we are entering to way philosophy mental idea of Einstein which he brought to apply in overall image of energy system in the nature) and c is the thought that rather profoundly is the speed of the mind who want mass media between each other (which be something mass speed media of the mind like relatively or speaking of physical physics way is the energy follows the algebraic equation (1) the energy in nature system like relatively. It still not the energy in manner absolute nature. If the energy has in manner absolute nature, it already must have idea revolution adds deliver a speech next). It was applied physical way of physics picture see to become visible light speed there. The hypothesis veracities the words of special relative theory 2's the speed of physical light is valuable stable is not always under the source in the light (intangibly speaking that this theory gives easy understanding of the speed of the mind or the feeling of the mind that has the relatively with a person that has the same mind as the feelings, there is moral feeling viewpoint shares that is stable unite there. As a result compare idea physical source system applies physical picture. The source hypothesis veracities the words of picture special relativity theory 2's of Einstein there (Kalayaruan, & Seetawan, 2018).

The new idea of light add in relative theory field

As previously noted, the addition of the algebraic energy equation to natural systems that Einstein presented had errors. This was applied to the unified field theory (Ng, Devine, & Tooper, 1969; Kaku, & Thompson, 1997; Gross, 2007; Huang, 2008; Gell–Mann, Ramond, & Slansky, 2010; Yepez, 2011; Parker, 2013),

which Einstein attempted to add the base power in all natural systems that merged with the same rule (Popper, 1974; Latour, 1988; Penrose, & Jorgensen, 2006; Verlinde, 2011; Popper, 2013). Eq. (1) explained that energy cannot be added to a system. The energy totals up like relatively not the energy totals up in nature system like absolute. Recently, the European Organization for Nuclear Research (CERN) conducted an experiment on Einstein's unified field test theory (Beccaria, Macorini, Renard, & Verzegnassi, 2006; Abat, et al, 2010; Pierog, Karpenko, Katzy, Yatsenko, & Werner, 2015; Lindner, Platscher, & Queiroz, 2018) because the overall energy image in natural systems results in errors, and the pillar of physics theory development at present is unable to seek all of the basis particles. (Zhang, Kuang, He, & Yuan, 2003; Voronin, et al, 2007; Sloan, & Wolfendale, 2008; Kniehl, Kramer, Schienbein, & Spiesberger, 2012; Gilman, 2018).Which developed as a hit–and–miss idea from Einstein's theory of relativity is the "super natural relative theory" The presentation of the idea of energy nature system like absolute in nature system generally of all universe mass. The philosophy of the idea is profoundly from the Buddhism and every religion that has idea conform astonishingly in the answer of all nature universal system throughout in algebraic equation one system (by energy system in all nature system universe theology). The author's idea crystallize equation as follows:

$$E = mc^3 \tag{2}$$

Eq. (2) relates from the ideas of Buddhadasa Bhikkhu (1906–1993) (Lai, 1992; Bhikkhu, 1996; Ito, 2012; Zöllner, 2014). who developed the jigsaw puzzle theory of relativity. The sources of the idea are as follows:

1. Buddha enlightened the dharma had existed before he was born. but Buddha had a revelation on the original theory of natural systems. Buddha was seeing the universe is the same in the past, present, and future. The enlightenment of Buddhism is called Nirvana (Frauwallner, 1973; Obermiller, 1999; Gombrich, 2006; Lopez Jr, 2013; Thomas, 2013).

2. Laozi, Taoism savant, was told that there were things that had existed before the world. They were neither materialistic nor spiritual and were called Tao

(Lao–tzu, & Feng, 1972; Fu, 1973; Hoff, Shepard, & Timur, 1982; Kirkland, 2002; Roth, 2004; Watts, 2011).

3. In Hinduism, there is a belief in Atman, the spiritual life principle of the universe, which is regarded as inherence in the real self of an individual. (Dowson, 1879; Dandekar, 1968; Thapar, 1989; Pandey, 1994; Bhatt, 2001; Von Stietencron, 2005; Bapu, 2012).

4. Christianity and Islam both involve belief in God (Cullmann, 1950; Hardison, 1965; Wilken, 1992; Walker, 2014; Walls, 2015; Gilson, 2019).

5. Early physics postulated the existence of ether energy state systems. It had existed before theology was established. It included things that could not be measured or physically changed, but there was a transfer of energy in every space and time in nature (Cantor, & Hodge, 1982; Kostro, 1992; Worrall, 1994; Harrison, 2001; Raia, 2007; Cordero, 2011). (In this paper, ether transfer is the light energy in each state system).

The previously mentioned factors can be applied to theoretical physics. In Buddhism, there is an enlightenment called Nirvana. In science, it is called the ether, while Christianity and Islam believe in God. Ataman is a belief in Hinduism, in Taoism, of the Tao, these beliefs provide insight into the purpose of religion and physics, which ultimately have a similar meaning.

Nirvana energy = Tao energy = Atman energy = God energy = Ether energy

These concepts can be considered in the theoretical physics jigsaw puzzle development theory and are part of Einstein's relative energy equation because Eq. (2) included ether energy (the ether energy can transfer energy by light energy in each state system).

Even *2n* light dimension energy state systems and odd $3n_j$ light dimension energy state systems (Kalayaruan, & Seetawan, 2019)

1. even *2n* light dimension energy state systems are the state of dual light dimension energy state systems in *2n* light dimension energy state systems. (n = 1, 2, ..., ∞)

2. odd $3n_j$ light dimension energy state systems are the state of odd light dimension energy state systems in $3n_j$ light dimension energy state systems. (n_j = 1, 3, 5,...,2j–1, $j \geq 1$)

Applying and discovering the new energy formula (Kalayaruan, & Seetawan, 2019)

1. even *2n* light dimension energy state systems states systems. The equation even 2n light dimension energy state systems as below,

$$E_{2n-sys} = m_{2n-sys} c_n^{2n}. \quad \text{if } n = 1, 2, ..., \infty \tag{3}$$

where E_{2n-sys} = the even *2n* light dimension energy state systems in the theory of relativity frames

n = the light dimension energy state systems (n = 1, 2, ..., ∞)

m_{2n-sys} = the mass energy of the even 2n light dimension energy state systems

c_n^{2n} = the even *2n* light dimension energy state systems speed in power 2n

2. The odd $3n_j$ light dimension energy state systems

Researchers presented the theory that developed into the new idea from Einstein's theory of relativity as

$$E_{3n_j-sys} = m_{3n_j-sys} c_{n_j}^{3n_j}. \quad \text{if } n_j = 1, 3, 5,...,2j-1 \tag{4}$$

where E_{3n_j-sys} = the odd $3n_j$ light dimension energy state systems in super relative theory

n_j = the light dimension energy state systems (n_j = 1, 3, 5,...,2j–1., $j \geq 1$)

m_{3n_j-sys} = the mass energy of the odd $3n_j$ light dimension energy state systems

$c_{n_j}^{3n_j}$ = the speed energy of the odd $3n_j$ light dimension energy state systems in power $3n_j$

Eq. (4) emerged from the discovery of the new idea of basic quantum field structures in the smallest particle energy state systems. We assumed that the mass smallest light particle energy systems had stress perturbation energy state systems (Van Hove, 1954; Odum, Finn, & Franz, 1979; Odum, 1985; Slawinski, et al, 1992; Monserrat, Drummond, & Needs, 2013) There were relaxed point energy state systems (Vakhnenko, Kudinov, & Palamarchuk, 1984; Tsamis, & Woodard, 1993; Bauer, Solà, & Štefančić, 2009; Smullen, Mohan, Nigam, Gurumurthi, & Stan, 2011; Ramasubramanian, Venkataramani, Parandhaman, & Raghunathan, 2013) from a dual system to another energy state system (Longuet-Higgins, 1975; Battjes, & Janssen, 1978; Hamada, Sawada, & Oshiyama, 1992; Varshney, 2008) It was the ether point energy state system (Adronov, et al, 2000; Wang, & Duan, 2004) and connecting dual-energy state systems (Bjorkholm, 1985; Sen, 1994; Goedecker, Teter, & Hutter, 1996; Marin, Boll, Mileto, & Nelson, 2014) by light ether point energy state systems. These systems were restructured by equilateral triangle-based structural symmetry energy state systems (O'meara, 1990; Rév, Emtir, Szitkai, Mizsey, & Fonyó, 2001; Lee, Shishidou, & Freeman, 2002; Jian-Hui, Ping, & Qing-Quan, 2005). The idea addressed the equilateral triangle-based structural symmetry particle energy state systems that could renormalize three points of the basic structure in relativity energy state systems (Fulling, Parker, & Hu, 1974; Kaufman, Griffiths, Yeomans, & Fisher, 1981; Hill, Leung, & Rao, 1985; Henkelman, & Jónsson, 2000; Henkelman, Jóhannesson, & Jónsson, 2002). as well as odd 3n light dimension energy state systems. By each structure of equilateral triangle-based structures relative symmetry particles in energy state systems consecutive energy (hint: the new idea in string theory (Eguchi, 1980; Woit, 2001; Kofman, 2003; Kaloper, Kofman, Linde.& Mukhanov, 2006)).

3.Summation of all the even *2n* light dimension energy state systems

$$\sum_{n=1}^{\infty} E_{2n-sys} = \sum_{n=1}^{\infty} m_{2n-sys} c_n^{2n} \qquad \text{if } n = 1, 2, \ldots, \infty \qquad (5)$$

where $\sum_{n=1}^{\infty} E_{2n-sys}$ = the summation of all the even *2n* light dimension energy state systems

n = the light dimension energy in state system (*n*=1, 2,... ∞)

m_{2n-sys} = the summation mass energy of the even *2n* light dimension energy state systems

c_n^{2n} = the summation of speed energy in the even *2n* light dimension energy state systems

4. Summation of all the odd $3n_j$ light dimension energy state systems

$$\sum_{n_j=1}^{\infty} E_{3n_j-sys} = \sum_{n_j=1}^{\infty} m_{3n_j-sys} c_{n_j}^{3n_j} \quad \text{if } n_j = 1, 3, 5,\ldots,2j-1., \; j \geq 1 \qquad (6)$$

where $\sum_{n_j=1}^{\infty} E_{3n_j-sys}$ = the summation of all the odd $3n_j$ lights dimension energy state systems

n_j = the light dimension energy in state system (n_j = 1, 3, 5,...,2*j*–1., *j* ≥ 1)

m_{3n_j-sys} = the summation mass energy of the odd $3n_j$ light dimension energy state systems

$c_{n_j}^{3n_j}$ = the summation of speed energy in the odd $3n_j$ light dimension energy states systems in each state

Dissertation Objectives

1. To study symbolic theory of super relative in high dimension

2. To apply symbolic theory of super relative in quantum fields (in the case study apply the new theory in open high dimensions)

Anticipated Outcomes of the Thesis Dissertation

The expected outcomes for the thesis are to obtain symbolic theory of super relative apply to quantum field theory and explain how to use super relative energy in open high super relative dimensions.

Dissertation Structure

The dissertation includes 5 chapters including introduction, literature reviews, methods, results and discussions, conclusions and suggestions. In chapter 1 introduction consists of rationale and motivation, dissertation objectives, anticipated outcomes of the thesis dissertation, and dissertation structure. The related literature of the special history idea of relative theory, the Einstein's postulates, Jiradeach's hypothesis, symbolic theory of super relative, Compton effect, related research in chapter 2. In the chapter 3 illustrates research methodology. The results and discussion of experiment are presented in chapter 4. In Finally, in chapter 5 presents the conclusions and suggestions of the work. In addition, the references and appendices are present after chapter 5.

CHAPTER 2

THEORY AND LITERATURE REVIEW

This chapter represents 7 topics viz, the special history idea of relative theory, Einstein's postulates, Jiradeach's hypothesis, symbolic theory of super relative, Compton effect, related research and references.

The special history idea of relative theory

The nature of light consists of two ideas:

1) Light is a wave similar to sound (Christiaan Huygens, 1678) (Kapralos, Jenkin, & Milios, 2005;Huygens, 2012)

2) Light consists of particles (per Newton, it does not bend around obstacles) (Newton, 1979; Penrose, 1987; Sheehan, & Rode, 1999; Raftopoulos, Kalyfommatou, & Constantinou, 2005)

These ideas explained the reflection and refraction of light. Huygens suggested that light waves propagate in a medium called "luminiferous ether" (Sagnac, 1913; Sinha, Sivaram, & Sudarshan,, 1976; Ranzan, 2018), which is analogous to soundwaves traveling in air.

Thomas Young (1860) and Augustine Fresnel (1816) confirmed these theories (Marshall, & Santos, 1988; Wang, Kuzmich, & Dogariu, 2000).

a) Interference

b) Polarization $\Rightarrow$ transversal wave

After considerable research, Maxwell (1864) developed the theory of electromagnetism (Di Bartolo, 2004; Raab, De Lange, & de Lange, 2005; Jones, 2013). He proposed that light was electromagnetic (EM) radiation and there was only one ethereal medium for all EM phenomena (Ponath, & Stegeman, 2012; Ohtsu, & Kobayashi, 2013; Debertolis, 2015). Electromagnetic waves (EM waves) are created as the result of vibrations between an electric field and a magnetic

field. EM waves are composed of oscillating magnetic and electric fields. Electromagnetic waves form when an electric field comes into contact with a magnetic field. Hence, they are known as “electromagnetic” waves. The electric and magnetic fields of an electromagnetic wave are perpendicular (at right angles) to each other. They are also perpendicular to the direction of the EM wave.

Einstein’s postulates (Robertson, 1949; Friedman, & Donley, 1989; Sartori, 1996)

Einstein developed an axiomatic theory called the Theory of Special Relativity (1905). It specifies the properties of space and time.

$\Rightarrow$ Relativity principle concept based on the Lorentz transformation (1899, 1904).

Hendrik Lorentz was the first one to realize that Maxwell’s equations are invariant under this transformation.

In 1905, Henri Poincare developed the transformation of the properties of a mathematical group and named it after Lorentz.

Einstein’s postulates:

(E1) All laws of physics are the same in every inertial frame of reference.

(E2) The speed of light is independent of the motion of its source.

Jiradeach’s hypothesis:

From the Basis idea Einstein’s postulates, we obtain the new idea call “Jiradeach’s hypothesis”

(J1) All of the laws of physics are the same in every inertial frame of reference. They are dependent on each dimension of light energy state systems.

(J2) The speed of light is independent of the motion of its source from each and every dimension of light energy.

Symbolic theory of super relative (Kalayaruan, & Seetawan, 2019)

Ether calculations

The equation of energy system will be generally similar to Einstein's theory as demonstrated in the following equation:

$$E = \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{7}$$

v = the mass velocity

If v<<c is used to obtain the value of energy system in nature system, generally $E = mc^2$ will follow Equation. (1) as indicated in the following equation:

$$k = \frac{1}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{8}$$

where k = the perturbation of the ether energy

from the knowledge of the ether as delivered speech before the absolute system will can show the perturbation system ether condition as follows from Equation. (8) lead c multiply by through (do not forget that value c this the condition c in ether system) will get the equation

$$ck = \frac{c}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{9}$$

which from Equation. (9) creates a new algebraic equation,

$$\frac{k}{1/c} = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{10}$$

$\frac{k}{1/c}$ replaced with k_e results in a new equation:

$$k_e = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{11}$$

where k_e is the constant of the behavioral light ether dimension energy state system from equation (1) multiplied by

$$k_e E = k_e mc^2, \tag{12}$$

from equation (12) replacing $k_e E$ with the symbol E_{e-sys} (keep in mind that value this the energy that have behavioral condition light ether dimension energy state system) as in the following equation:

$$E_{e-sys} = k_e mc^2, \tag{13}$$

$$E_{e-sys} = \frac{mc^2}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{14}$$

$$E_{e-sys} = \frac{mc^3}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{15}$$

If $v << c$ is used to obtain the value of energy system in nature system generally (the ether condition remains the same), the algebraic equation will be

$$E_{e-sys} = mc^3 \tag{16}$$

Another Method explain Super relative energy from Tao (Kalayaruan, & Seetawan, 2015)

From algebraic equation energy system nature formula again, equation (7). The author get more idea from Tao give,

$$E = \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{17}$$

$$\frac{E}{(\frac{1}{c})} = \frac{mc^2}{(\frac{1}{c})\sqrt{1-\frac{v^2}{c^2}}}, \tag{18}$$

$$cE = \frac{mc^2}{(\frac{1}{c})\sqrt{1-\frac{v^2}{c^2}}}, \quad (19)$$

$$E_t = \frac{mc^2}{(\frac{1}{c})\sqrt{1-\frac{v^2}{c^2}}}, \quad (20)$$

$$E_t = \frac{mc^2}{\sqrt{(\frac{i}{c})(1-\frac{v^2}{c^2})(\frac{-i}{c})}}, \quad (21)$$

$$E_t = \frac{mc^2}{\sqrt{(\frac{1}{c^2})(1-\frac{v^2}{c^2})}}, \quad (22)$$

$$E_t = \frac{mc^3}{\sqrt{1-\frac{v^2}{c^2}}}, \quad (23)$$

when E_t = super relative energy explain from tao

$\frac{+i}{c}$ = yang

$\frac{-i}{c}$ = yin

The author get the same equations (15) and (23).

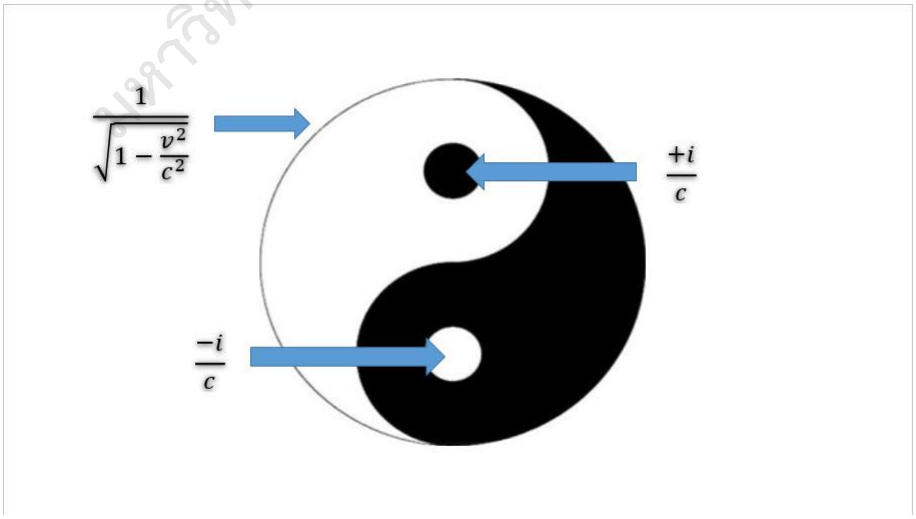

Figure 1 Tao diagram were presented hide perturbation light system of ying and yang energy state of Tao philosophy and show perturbation state of einstein's relative energy equation

Proof of the equation (3) the even *2n* light dimension energy state systems in theory of relativity (Kalayaruan, & Seetawan, 2019)

From $$E = mc^2 \quad (24)$$

$$(E)^n = (mc^2)^n \quad (25)$$

$$E^n = m^n c^{2n} \quad (26)$$

$$E_{2n-sys} = m_{2n-sys} c_n^{2n} \quad (27)$$

In equation (26), E^n is replaced with E_{2n-sys} in even 2*n* light dimension energy state systems in the theory of relativity (the meaning of the equation is presented the even 2*n* light dimension energy state systems in theory of relativity frames).

m^n is replaced with m_{2n-sys} in the even 2*n* light dimension energy state systems in the theory of relativity (the equation demonstrates the even 2*n* light dimension energy state systems in theory of relativity frames).

c^{2n} is replaced with c_n^{2n} in even 2*n* light dimension energy state systems in the theory of relativity (the equation demonstrates the even 2*n* light dimension energy state systems in theory of relativity frames).

Proof of the equation (4) the odd $3n_j$ light dimension energy state systems in theory of super relativity (Kalayaruan, & Seetawan, 2019)

From $$E_{e-sys} = mc^3 \quad (28)$$

$$(E_{e-sys})^{n_j} = (mc^3)^{n_j} \quad (29)$$

$$E_{e-sys}^{n_j} = m^{n_j} c^{3n_j} \quad (30)$$

$$E_{3n_j-sys} = m_{3n_j-sys} c_{n_j}^{3n_j} \quad (31)$$

In equation (30), $E_{e-sys}^{n_j}$ is replaced with E_{3n_j-sys} in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of super relativity frames).

m^{n_j} is replaced with m_{3n_j-sys} in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of super relativity frames).

c^{3n_j} is replaced with $c_{n_j}^{3n_j}$ in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of super relativity frames).

Explanation the odd $3n_j$ lights dimension energy state systems in symbolic theory of super relative (Kalayaruan, & Seetawan, 2019)

From $E = mc^2$ replace by $E_{2n-sys} = m_{2n-sys}c_n^{2n}$,

$v = v_{2n-sys}$, $c = c_{2n-sys}$

results in

$$E_{2n-sys} = \frac{m_{2n-sys}c_n^{2n}}{\sqrt{1-\frac{v_{2n-sys}^2}{c_{2n-sys}^2}}}, \tag{32}$$

where E_{2n-sys} = the even $2n$ light dimension energy state systems in theory of relativity frames

n = the light dimension energy state systems (n = 1, 2, ..., ∞)

m_{2n-sys} = the mass energy of the even $2n$ light dimension energy state systems

c_n^{2n} = the even $2n$ light dimension energy state systems speed in power $2n$

c_{2n-sys} = the even $2n$ lights dimension energy state systems speed

v_{2n-sys} = the velocity in even $2n$ lights dimension energy state systems speed

If $v_{2n-sys} \ll c_{2n-sys}$ is used to obtain the value called super relativity energy state in even $2n$ light dimension energy systems in theory of relativity frames $E_{2n-sys} = m_{2n-sys}c_n^{2n}$, it follows from equation (8) that replacing k with k_{n_j}, $v = v_{n_j}$, $c = c_{n_j}$ will result in:

$$k_{n_j} = \frac{1}{\sqrt{1-\frac{v_{n_j}^2}{c_{n_j}^2}}}, \tag{33}$$

where k_{n_j} is the perturbation ether energy state system in n_j dimension energy state systems (n_j = 1, 3, 5,...,2j-1., $j \geq 1$)

From the knowledge of the ether as delivered speech before absolute system illustrates the ether system condition as follows:

from equation (33) lead c^{n_j} multiplied by the (keep in mind that value c^{n_j} is the condition c^{n_j} in n dimension ether energy state systems) results in:

$$c^{n_j} k_{n_j} = \frac{c^{n_j}}{\sqrt{1-\frac{v_{n_j}^2}{c_{n_j}^2}}}, \tag{34}$$

Replacing c^{n_j} with $c_{3n_j-sys}^{n_j}$, v_{n_j} by v_{3n_j-sys}, c_{n_j} by c_{3n_j-sys} results in:

$$c_{3n_j-sys}^{n_j} k_{n_j} = \frac{c_{3n_j-sys}^{n_j}}{\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{35}$$

where $c_{3n_j-sys}^{n_j}$ = the odd $3n_j$ light dimension energy state systems speed in power n_j

n_j = the light dimension energy state systems (n_j = 1, 3, 5,...,2j-1., $j \geq 1$)

v_{3n_j-sys} = the velocity in odd $3n_j$ light dimension energy state systems

c_{3n_j-sys} = the odd $3n_j$ lights dimension energy state systems speed

From equation (35)

$$\frac{k_{n_j}}{1/c_{3n_j-sys}^{n_j}} = \frac{1}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{36}$$

$\frac{k_{n_j}}{1/c^{3n_j-sys}}$ is replaced with $k_{3n_j-ether}$, resulting in

$$k_{3n_j-ether} = \frac{1}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{37}$$

where $k_{3n_j-ether}$ is the constant of the behavioral condition light ether odd $3n_j$ light dimension energy state systems from (3) lead value multiply by the

following equation:

$$k_{3n_j-ether}E_{2n-sys} = k_{3n_j-ether}m_{2n-sys}c_n^{2n}, \quad (38)$$

from equation (38), replacing $k_{3n_j-ether}E_{2n-sys}$ with E_{3n_j-sys} (keep in mind that the values of the energy that have behavioral condition odd $3n_j$ light dimension energy state systems) results in:

$$E_{3n_j-sys} = k_{3n_j-ether}m_{2n-sys}c_n^{2n}, \quad (39)$$

$$E_{3n_j-sys} = \frac{m_{2n-sys}c_n^{2n}}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \quad (40)$$

$$E_{3n_j-sys} = \frac{m_{2n-sys}c_n^{2n}c_{3n_j-sys}^{n_j}}{\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \quad (41)$$

If $v_{3n_j-sys} << c_{3n_j-sys}$ is used to obtain the value called the odd $3n_j$ light dimension energy state systems in theory of super relative (the ether energy condition remains the same) will result in:

$$E_{3n_j-sys} = m_{2n_j-sys}c_n^{2n}c_{3n_j-sys}^{n_j}, \quad (42)$$

from equation (42), if $c_{3n_j-sys}^{n_j} = \lambda_{effect-3n_j}c_n^n$ if $\lambda_{effect-3n_j}$ is the effect of odd $3n_j$ light dimension energy state systems results in:

$$E_{3n_j-sys} = \lambda_{effect-3n_j}m_{2n-sys}c_n^{2n}c_n^n, \quad (43)$$

results in $$E_{3n_j-sys} = \lambda_{effect-3n_j}m_{2n-sys}c_n^{3n}, \quad (44)$$

replacing $\lambda_{effect-3n_j}m_{2n-sys} = m_{3n_j-sys}$ results in:

$$E_{3n_j-sys} = m_{3n_j-sys}c_n^{3n}, \quad (45)$$

c_n^{3n} replacing $c_{n_j}^{3n_j}$ in odd $3n_j$ light dimension energy state systems results in:

$$E_{3n_j-sys} = m_{3n_j-sys}c_{n_j}^{3n_j} \quad (46)$$

In which the super nature relativity energy is in odd $3n_j$ light dimension energy state systems (the equation demonstrates odd $3n_j$ light dimension energy state systems).

Compton effect (Zettili, 2003)

In his 1923 experiment, Compton provided the most conclusive confirmation of the particle aspect of radiation. By scattering X–rays off free electrons, he found that the wavelength of the scattered radiation is larger than the wavelength of the incident radiation. This can be explained only by assuming that the X–ray photons behave like particles.

At issue here is to study how X–rays scatter off free electrons. According to classical physics, the incident and scattered radiation should have the same wavelength. This can be viewed as follows. Classically, since the energy of the X–ray radiation is too high to be absorbed by a free electron, the incident X–ray would then provide an oscillatory electric field which sets the electron into oscillatory motion, hence making it radiate light with the same wavelength but with an intensity I that depends on the intensity of the incident radiation I_0 (i.e., $I \propto I_0$). Neither of these two predictions of classical physics is compatible with experiment. The experimental findings of Compton reveal that the wavelength of the scattered X–radiation increases by an amount $\Delta\lambda$, called the wavelength shift, and that $\Delta\lambda$ depends not on the intensity of the incident radiation, but only on the scattering angle.

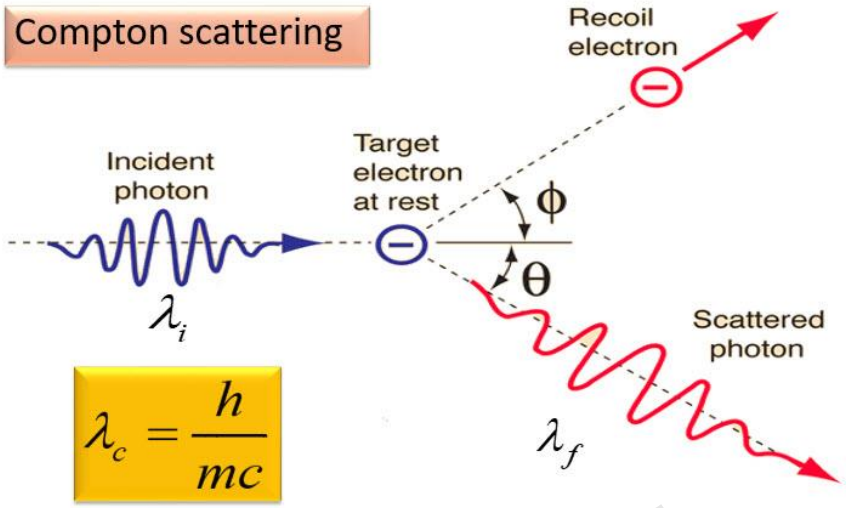

Figure 2 Compton scattering of a photon (of energy $h\nu$ and momentum $\vec{p}$) off a free, stationary electron. After collision, the photon is scattered at angle θ with energy $h\nu'$).

Compton succeeded in explaining his experimental results only after treating the incident radiation as a stream of particles—photons—colliding *elastically* with individual electrons. In this scattering process, which can be illustrated by the elastic scattering of a photon from a free electron (Figure 1) (When a metal is irradiated with high energy radiation, and at sufficiently high frequencies—as in the case of X-rays—so that $h\nu$ is much larger than the binding energies of the electrons in the metal, these electrons can be considered as free.) the laws of elastic collisions can be invoked, notably the conservation of energy and momentum.

Consider that the incident photon, of energy $E = h\nu$ and momentum, $p = h\nu/c$ collides with an electron that is initially at rest. If the photon scatters with a momentum $\vec{p}'$) at an angle θ (Here θ is the angle $\vec{p}$ between and $\vec{p}'$), the photons' momenta before and after collision.) while the electron recoils with a momentum $\vec{P}_e$, the conservation of linear momentum yields

$$\vec{p} = \vec{P}_e + \vec{p}', \tag{47}$$

which leads to

$$\vec{P}_e^{\,2} = (\vec{p} - \vec{p}')^2 = p^2 + p'^2 - 2pp'\cos\theta = \frac{h^2}{c^2}(v^2 + v'^2 - 2vv'\cos\theta). \tag{48}$$

Let us now turn to the energy conservation. The energies of the electron before and after the collision are given, respectively, by

$$E_0 = mc^2 \quad ,(49)$$

$$E_e = \sqrt{\vec{P}_e^{\,2}c^2 + m^2c^4} = h\sqrt{v^2 + v'^2 - 2vv'\cos\theta + \frac{m^2c^4}{h^2}}\,; \tag{50}$$

in deriving this relation, The author have used equation (48). Since the energies of the incident and scattered photons are given by $E = hv$ and $E' = hv'$), respectively, conservation of energy dictates that

$$E + E_0 = E' + E_e \tag{51}$$

or

$$hv + mc^2 = hv' + h\sqrt{v^2 + v'^2 - 2vv'\cos\theta + \frac{m^2c^4}{h^2}}\,, \tag{52}$$

which in turn leads to

$$v - v' + \frac{mc^2}{h} = \sqrt{v^2 + v'^2 - 2vv'\cos\theta + \frac{m^2c^4}{h^2}}\,. \tag{53}$$

Squaring both sides of equation (53) and simplifying, the author end up with

$$\frac{1}{v'} - \frac{1}{v} = \frac{h}{mc^2}(1 - \cos\theta) = \frac{2h}{mc^2}\sin^2(\frac{\theta}{2}). \tag{54}$$

Hence the wavelength shift is given

,

$$\Delta\lambda = \lambda' - \lambda = \frac{h}{mc}(1-\cos\theta) = 2\lambda_c \sin^2(\frac{\theta}{2}) \quad (55)$$

Where $\lambda_c = h/(mc) = 2.426\times10^{-12}$ m is called the Compton wavelength of the electron.This relation, which connects the initial and final wavelengths to the scattering angle, confirms Compton's experimental observation: the wavelength shift of the X-rays depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident photons.

In summary, the Compton effect confirms that photons behave like particles: they collide with electrons like material particles.

Review Literature

Van Hove (Van Hove, 1954, pp. 517-540) repored that the quantum-mechanical theory of the transport equation is reconsidered for the case of transport processes produced by a small perturbation. On the basis of the most common applications of the equation to crystals (heat conduction, etc.) a characteristic property of the perturbation is recognized as being responsible for the appearance of dissipative effects in the time evolution of the system.

Fulling, Parker, & Hu (Fulling, Parker, & Hu, 1974, p. 3905) reported that a finite energy-momentum tensor remains after renormalization of the cosmological constant and one other coupling constant in a generalized Einstein equation. In the Robertson-Walker cases, because of conformal flatness, there is no divergence beyond the usual quartically divergent constant vacuum energy; when the mass is not zero, however, a finite renormalization of the gravitational constant is suggested. The correctness of the methods is tested by considering a coordinate system in which flat spacetime assumes the form of a Kasner universe: The adiabatic definition of particle number and vacuum, which is basic

to our expansion and renormalization methods, is seen to be consistent with the usual flat-space concepts.

Odum, Finn, & Franz (Odum, Finn, & Franz, 1979, pp. 349-352) reported that man-made perturbations often have a subsidy-stress effect; low levels may enhance, whereas higher levels depress ecosystem function and/or specific species components. Unimodal performance curves and flow diagram models clarify the meaning of terms and cause-and-effect relationships in dealing with ecosystem response to perturbation.

Hendry (Hendry, 1980, pp. 59-79) reported that evidence bearing on the development of the wave-particle problem for light in the period 1900–1920 is presented in order to indicate how this problem was then viewed. Particular attention is drawn to the logical force of the arguments used in the debate, and to their persuasive force in the context of current values and of the contemporary state of physics. It is shown that, despite the accumulation of strong evidence in support of wave-particle duality, and despite widespread agreement on the inadequacy of both wave and particle theories, there was little acceptance of duality. This is attributed to physicists' acceptance of the long-standing tradition requiring a physical description to be above all structurally consistent.

Kaufman, Griffiths, Yeomans, & Fisher (Kaufman, Griffiths, Yeomans, & Fisher, 1981, p. 3448) reported that the global phase diagram for a three-component lattice gas or spin-one Ising model with general single-site and nearest-neighbor "ferromagnetic" interactions is worked out for two-dimensional lattices using a Migdal-Kadanoff recursion relation. It differs in important qualitative respects from the corresponding mean-field phase diagram. The set of fixed points and flows provides the characteristic phase diagrams of the three-state Potts multicritical point and the ordinary ($n=1$) tricritical point in a complete set of symmetry-breaking fields. The latter is associated, in this

renormalization-group scheme, with seven distinct critical fixed points, a number which is surprisingly large.

Sinnott (Sinnott, 1981, pp. 293-311) reported that the relativity theory in physics.It is reviewed for the purpose of suggesting a relativistic metatheory for life span developmental psychology. Developmentalists might find this metatheory useful in describing complex individual biological, social, and psychological development in a historical context. Some expected uses of the approach in episte-mological and developmental studies are outlined.

Hill, Leung, & Rao (Hill, Leung, & Rao, 1985, pp. 517-537) reported numerically the renormalization group equations for the Higgs potential of the two-doublet model assuming perturbative unification and sufficiently large initial quartic and Higgs-Yukawa couplings such that the full nonlinearities interplay. We obtain predictions for the physical Higgs boson spectrum in the two-doublet model up to systematic differences in fermion coupling schemes.

Odum (Odum, 1985, pp. 419-422) reported that ecosystems not suffering from unusual external perturbations, we observe certain well-defined developmental trends. Since disturbance tends to arrest, or even reverse, these autogenic developments, we can anticipate some ecosystem responses to stress. Trends expected in stressed ecosystems include changes in energetics, nutrient cycling, and community structure and function.

Penrose (Penrose, 1987, pp. 17-49) reported that Newton's corpuscular undulatory view of light. The supreme stature of Newton as a scientist cannot be doubted. As an experimental physicist, he had superb natural skill, and was profoundly ingenious, as well as being exceptionally careful in the construction and execution of his experiments. As a mathematician he possessed extraordinary power, and, indeed, had few mathematical peers over the whole of history. In fact, it was very necessary for him, in developing his scientific theories.

Marshall, & Santos (Marshall, & Santos, 1988, pp. 185-223) reported that not give a local explanation of the coincidence counts in spatially separated photodetectors. This is the case for a wide variety of phenomena, including the anticorrelated counting rates in the two channels of a beam splitter, the coincident counting rates of the two “photons” in an atomic cascade, and the “antibunching” observed in resonance fluorescence. They propose a local realist theory that explains all of these data in a consistent manner. The theory uses a completely classical description of the electromagnetic field, but with boundary conditions of the far field that are equivalent to assuming a real fluctuating, zero-point field. It is related to stochastic electrodynamics similarly to the way classical optics is related to classical electromagnetic theory. The quantitative aspects of the theory are developed sufficiently to show that there is agreement with all experiments performed till now.

O'meara (O'meara, 1990) reported that the Pythagorean idea that number is the key to understanding reality inspired philosophers in the fourth and fifth centuries to develop theories in physics and metaphysics using mathematical models. These theories were to become influential in medieval and early modern philosophy, yet until now.

Ghose, Home, & Agarwal (Ghose, Home, & Agarwal, 1991, pp. 403-406) reported that an experiment in which “single photon states” are incident on a combination of two prisms placed opposite each other. When the gap between the prisms is larger than the wavelength, the incident “photon states” suffer total internal reflection inside the first prism (registered by counter 1). When the gap is shorter than the wavelength, there is a possibility of their tunneling across the gap (registered by counter 2). The two counters 1 and 2 clicking in perfect anticoincidence would show simultaneously sharp particle and wave characteristics, highlighting inadequacy of the complementarity principle in its usual form. Other possibilities of the outcome are not favoured by the formalism of quantum optics.

Sen (Sen, 1994, pp. 217-221) reported that existence of SL(2,Z) duality in toroidally compactified heterotic string theory (or in the N = 4 supersymmetric gauge theories), that includes the strong-weak coupling duality transformation, implies the existence of certain supersymmetric bound states of monopoles and dyons. We show that the existence of these bound states, in turn, requires the existence of certain normalizable, (anti-) self-dual, harmonic forms on the moduli space of BPS multi-monopole configurations, with specific symmetry properties. We give an explicit construction of this harmonic form on the two monopole moduli space, thereby proving the existence of all the required bound states in the two-monopole sector.

Worrall (Worrall, 1994) reported that Fresnel's theory of light was (a) impressively predictively successful yet (b) was based on an "entity" (the elastic-solid ether) that we now "know" does not exist. Does this case "confute" scientific realism as Laudan suggested? Previous attempts (by Hardin and Rosenberg and by Kitcher) to defuse the episode's anti-realist impact. The strongest form of realism compatible with this case of theory-rejection is in fact structural realism. This view was developed by Poincare who also provided reasons to think that it is the only realist view of theories that really makes sense.

Goedecker, Teter, & Hutter (Goedecker, Teter, & Hutter, 1996, p. 1703) reported that pseudopotential coefficients for the first two rows of the Periodic Table. The pseudopotential is of an analytic form that gives optimal efficiency in numerical calculations using plane waves as a basis set. At most, seven coefficients are necessary to specify its analytic form. It is separable and has optimal decay properties in both real and Fourier space. Because of this property, the application of the nonlocal part of the pseudopotential to a wave function can be done efficiently on a grid in real space. Real space integration is much faster for large systems than ordinary multiplication in Fourier space, since it shows only quadratic scaling with respect to the size of the system.The

systematically verify the high accuracy of these pseudopotentials by extensive atomic and molecular test calculations.

Sartori (Sartori, 1996) reported that nonspecialists with no prior knowledge of physics and only reasonable proficiency with algebra can now understand Einstein's special theory of relativity. Effectively diagrammed and with an emphasis on logical structure, Leo Sartori's rigorous but simple presentation will guide interested readers through concepts of relative time and relative space. Sartori covers general relativity and cosmology, but focuses on Einstein's theory.

Sheehan, & Rode (Sheehan, & Rode, 1999, pp. 336-358) reported that the prevailing assumption that narrative and scientific discourse are incompatible genres, in this article the authors show that scientific texts typically follow a narrative pattern. This simple observation that narrative and scientific texts are similar is not all that surprising when we recognize that scientific discourse, like all narratives, describes what happened and what it meant. Indeed, scientific texts are almost always accounts of scientists' experiences in reality. After developing a vocabulary of narrative, the authors analyze the works of Newton and Einstein, using narrative analysis to illuminate scientific texts as stories.

Rovelli (Rovelli, 2000, pp. 3776-3800) reported that in fundamental physics, this has been the century of quantum mechanics and general relativity. It has also been the century of the long search for a conceptual framework capable of embracing the astonishing features of the world that have been revealed by these two “first pieces of a conceptual revolution.” The general requirements on the mathematics and some specific developments toward the construction of such a framework are discussed. Examples of covariant constructions of (simple) generally relativistic quantum field theories have been obtained as topological quantum field theories, in nonperturbative zero-dimensional string theory and its higher-dimensional generalizations, and as spin foam models. A canonical construction of a general relativistic quantum field theory is provided by loop quantum gravity. Remarkably, all these diverse

approaches have turned out to be related, suggesting an intriguing general picture of general relativistic quantum physics.

Wang, Kuzmich, & Dogariu (Wang, Kuzmich, & Dogariu, 2000, p. 277) reported that Einstein's theory of special relativity and the principle of causality imply that the speed of any moving object cannot exceed that of light in a vacuum (c). Nevertheless, there exist various proposals for observing faster-than-c propagation of light pulses, using anomalous dispersion near an absorption line nonlinear and linear gain lines or tunnelling barriers. However, in all previous experimental demonstrations, the light pulses experienced either very large absorption or severe reshaping, resulting in controversies over the interpretation.

Bhatt (Bhatt, 2001) reported that the rise of authoritarian Hindu mass movements and political formations in India since the early 1980s raises fundamental questions about the resurgence of chauvinistic ethnic, religious and nationalist movements in the late modern period. This book examines the history and ideologies of Hindu nationalism and Hindutva from the end of the last century to the present, and critically evaluates the social and political philosophies and writings of its main thinkers.

Kupersztych, Monchicourt, & Raynaud (Kupersztych, Monchicourt, & Raynaud, 2001, p. 5180) reported that photoelectrons emitted from a gold target via a surface-plasmon-assisted multiphoton photoelectric process under a femtosecond laser pulse of moderate intensity are much more energetic than in an ordinary photoeffect without electron collective excitation. The phenomenon is interpreted in terms of time-dependent ponderomotive acceleration of the particles by the resonant field localized at the metal surface. The amplitude of the plasmon resonance may be directly estimated by means of the electron energy spectra.

Lee, Shishidou, & Freeman (Lee, Shishidou, & Freeman, 2002,

p. 233102) reported that an improvement of the linear triangle method for two-dimensional Brillouin zone integrations is presented. A simple correction formula for this improvement is given and applied to several systems — a three layer Fe(001) slab, a three layer slab of Si(001), and three layers of $MgB_2(001)$ —to investigate its validity and efficiency. This “improved triangle method” is seen to give better convergence behavior of the total energy, atomic force, and magnetic moment with respect to the number of **k**-points than do the normal triangle method and the special **k**-point method of Monkhorst and Pack.

Roth (Roth, 2004) reported that revolutionizing received opinion of Taoism's origins in light of historic new discoveries, Harold D. Roth has uncovered China's oldest mystical text -- the original expression of Taoist philosophy -- and presents it here with a complete translation and commentary. Over the past twenty-five years, documents recovered from the tombs of China's ancient elite have sparked a revolution in scholarship about early Chinese thought, in particular the origins of Taoist philosophy and religion. In Original Tao, Harold D. Roth exhumes the seminal text of Taoism -- Inward Training -- not from a tomb but from the pages of the Kuan Tzu, a voluminous text on politics and economics in which this mystical tract had been "buried" for centuries. Inward Training is composed of short poetic verses devoted to the practice of breath meditation, and to the insights about the nature of human beings and the form of the cosmos derived from this practice.

Kapralos, Jenkin, & Milios (Kapralos, Jenkin, & Milios, 2005) reported that the application of the Huygens-Fresnel principle to acoustical diffraction modeling. A theoretical formulation of the optics-based Huygens-Fresnel principle is presented followed by a discussion regarding the modifications necessary to apply the Huygens-Fresnel principle to acoustical diffraction modeling. Experimental results indicate the method is capable of modeling acoustical diffraction phenomena in a simple and efficient manner, making it attractive for interactive virtual environments.

Raftopoulos, Kalyfommatou, & Constantinou (Raftopoulos, Kalyfommatou, & Constantinou, 2005, pp. 649-673) reported that the history of science shows that for each scientific issue there may be more than one models that are simultaneously accepted by the scientific community. One such case concerns the wave and corpuscular models of light. Newton claimed that he had proved some properties of light based on a set of minimal assumptions, without any commitments to any one of the two models. This set of assumptions constitutes the geometrical model of light as a set of rays propagating in space.

Gombrich (Gombrich, 2006) reported that Buddhists consider that their religion has Three Jewels*: the Buddha, the Dhamma and the Sangha. They begin any ritual or religious ceremony by saying three times that they 'take refuge'in these Three Jewels, which are therefore also called the Three Refuges. Indeed, the taking of the Refuges is what defines a Buddhist. When they take refuge in the Buddha, Buddhists are thinking first and foremost of Gotama Buddha. Buddha is a title, meaning 'Enlightened'or 'Awakened'.

Stuewer (Stuewer, 2006, pp. 543-557) reported that Albert Einstein's light-quantum paper was the only one of his great papers of 1905 that he himself called “very revolutionary”. He sketchs his arguments for light quanta, his analysis of the photoelectric effect, and his introduction of the wave-particle duality into physics in 1909. He shows that Robert Andrews Millikan, in common with almost all physicists at the time, rejected Einstein's light-quantum hypothesis as an interpretation of his photoelectric-effect experiments of 1915. He then traces the complex experimental and theoretical route that Arthur Holly Compton followed between 1916 and 1922 that led to his discovery of the Compton effect, a discovery that Peter Debye also made virtually simultaneously and independently. Compton's discovery, however, was challenged on experimental grounds by William Duane and on theoretical grounds by Niels Bohr in the Bohr--Kramers--Slater theory of 1924, and only after that theory was disproved experimentally the following year by Walther Bothe and Hans Geiger in

Berlin and by Compton and Alfred~W.~Simon in Chicago was Einstein's light-quantum hypothesis generally accepted by physicists.

Einstein (Einstein, 2007, pp. 1537-1542) reported that about that alongside of the idea of ponderable matter, which is derived by abstraction from everyday life, the physicists set the idea of the existence of another kind of matter, the ether? The explanation is probably to be sought in those phenomena which have given rise to the theory of action at a distance, and in the properties of light which have led to the undulatory theory. Let us devote a little while to the consideration of these two subjects.Outside of physics we know nothing of action at a distance. When we try to connect cause and effect in the experiences which natural objects afford us, it seems at first as if there were no other | mutual actions than those of immediate contact, e.g. the communication of motion by impact, push and pull, heating or inducing combustion by means of a flame, etc. It is true that even in everyday experience weight, which is in a sense action at a distance, plays a very important part. But since in daily experience the weight of bodies meets us as something constant, something not linked to any cause which is variable in time or place, we do not in everyday life speculate as to the cause of gravity, and therefore do not become conscious of its character as action at a distance. It was Newton's theory of gravitation that first assigned a cause for gravity by interpreting it as action at a distance, proceeding from masses. Newton's theory is probably the greatest stride ever made in the effort towards the causal nexus of natural phenomena. And yet this theory evoked a lively sense of discomfort among Newton's contemporaries, because it seemed to be in conflict with the principle springing from the rest of experience, that there can be reciprocal | action only through contact, and not through immediate action at a distance.

Gross (Gross, 2007, pp. 1-13) reported that Einstein spent the last thirty years of his life searching for a unified field theory. He discuss Einstein's attempts at unification. He examine Einstein mistakes, ask why he went wrong, and wonder

what might have happened if he had followed a slightly different route. Gross then discuss, very briefly, where we stand today in realizing Einstein's goals.

Raia (Raia, 2007, pp. 18-43) reported that article follows the development of physicist Oliver Lodge's religio-scientific worldview, beginning with his reticent attraction to metaphysics in the early 1880s to the full formulation of his “ether theology” in the late 1890s. Lodge undertook the study of psychical phenomena such as telepathy, telekinesis, and “ectoplasm” to further his scientific investigations of the ether, speculating that electrical and psychical manifestations were linked phenomena that described the deeper underlying structures of the universe, beneath and beyond matter. For Lodge, to fully understand the ether was to force from the universe an ultimate Revelation, and psychical research—as the most modern and probatory science—was poised to replace religion as the means of that disclosure.

Bauer, Solà, & Štefančić (Bauer, Solà, & Štefančić, 2009, pp. 427-433) reported that the cosmological constant (CC) problem is the biggest enigma of theoretical physics ever. In recent times, it has been rephrased as the dark energy (DE) problem in order to encompass a wider spectrum of possibilities. It is, in any case, a polyhedric puzzle with many faces, including the cosmic coincidence problem, i.e. why the density of matter ρ_m is presently so close to the CC density ρ_Λ However, the oldest, toughest and most intriguing face of this polyhedron is the big CC problem, namely why the measured value of ρ_Λ at present is so small as compared to any typical density scale existing in high energy physics, especially taking into account the many phase transitions that our Universe has undergone since the early times, including inflation. In this Letter, we propose to extend the field equations of General Relativity by including a class of invariant terms that automatically relax the value of the CC irrespective of the initial size of the vacuum energy in the early epochs. We show that, at late times, the Universe enters an eternal de Sitter stage mimicking a tiny positive cosmological constant. Thus, these models could be able to solve the big CC

problem without fine-tuning and have also a bearing on the cosmic coincidence problem. Remarkably, they mimic the ΛCDM model to a large extent, but they still leave some characteristic imprints that should be testable in the next generation of experiments.

Ohanian (Ohanian, 2009, pp. 167-173) reported that Einstein's name closely linked with the celebrated relation $E = mc^2$ between mass and energy, a critical examination of the more than half dozen "proofs" of this relation that Einstein produced over a span of forty years reveals that all these proofs suffer from mistakes. Einstein introduced unjustified assumptions, committed fatal errors in logic, or adopted low-speed, restrictive approximations. He never succeeded in producing a valid general proof applicable to a realistic system with arbitrarily large internal speeds. The first such general proof was produced by Max Laue in 1911 (for "closed" systems with a time-independent energy–momentum tensor) and it was generalized by Felix Klein in 1918 (for arbitrary time-dependent "closed" systems).

Cordero (Cordero, 2011, pp. 1120-1130) reported that using the optical ether as a case study, this article advances four lines of consideration to show why synchronic versions of the divide et impera strategy of scientific realism are unlikely to work. The considerations draw from (a) the nineteenth-century theories of light, (b) the rise of surprising implication as an epistemic value from the time of Fresnel on, (c) assessments of the ether in end-of-century reports around 1900, and (d) the roots of ether theorizing in now superseded metaphysical assumptions. The typicality of the case and its impact on diachronic versions of the strategy are briefly discussed.

Mermin (Mermin, 2011, pp. 1-2) reported that H. C. Ohanian maintains that a consideration of the internal structure of a body reveals several mistakes in Einstein's 1905 paper on the mass–energy relation. The "mistakes" he identifies are based on misunderstandings of Einstein's argument.

Verlinde (Verlinde, 2011, p. 29) reported that starting from first principles and general assumptions present a heuristic argument that shows that Newton's law of gravitation naturally arises in a theory in which space emerges through a holographic scenario. Gravity is identified with an entropic force caused by changes in the information associated with the positions of material bodies. A relativistic generalization of the presented arguments directly leads to the Einstein equations. When space is emergent even Newton's law of inertia needs to be explained. The equivalence principle auggests that it is actually the law of inertia whose origin is entropic.

Watts (Watts, 2011) reported that the Tao way of man's cooperation with the natural course of the natural world. He takes the reader through the history of Tao and its interpretations by key thinkers such as Lao-Tzu, author of the Tao Te Ching. Alan Watts goes on to demonstrate how the ancient and timeless Chinese wisdom of Tao promotes the idea of following a life lived according to the natural world and goes against our goal-oriented ideas by allowing time to quiet our minds and observe the world rather than imposing ourselves on it.

Monserrat, Drummond, & Needs (Monserrat, Drummond, & Needs, 2013, p. 144302) reported that a unified approach is used to study vibrational properties of periodic systems with first-principles methods and including anharmonic effects. Our approach provides a theoretical basis for the determination of phonon-dependent quantities at finite temperatures. The low-energy portion of the Born-Oppenheimer energy surface is mapped and used to calculate the total vibrational energy including anharmonic effects, electron-phonon coupling, and the vibrational contribution to the stress tensor. They report results for the temperature dependence of the electronic band gap and the linear coefficient of thermal expansion of diamond, lithium hydride, and lithium deuteride.

Ohtsu, & Kobayashi (Ohtsu, & Kobayashi, 2013) reported that intuitive concepts and theories for students, engineers, and scientists who will be engaged in research in nanophotonics and atom photonics. The main topic is the optical near? eld, ie, the thin? lm of light that is localized on the surface of a nanometric material. In the early 1980s, one of the authors (M. Ohtsu) started his pioneering research on optical near? elds because he judged that nanometer-sized light would be required to shift the paradigm of optical science and technology.

Debertolis (Debertolis, 2015) reported that Archaeoacoustic and Electromagnetic research of ancient sites is becoming an established discipline. SB Research Group (SBRG) have been developing a new methodology over the last five years using a practical archaeoacoustic standard (SBSA), which helps to explain certain phenomena which are commonly found at “sacred sites”. Applying this expertise enabled better understanding of the specific EM and acoustic wave emissions present on Kanda Hill, Macedonia. Analyzing these emissions enables better understanding of what lies below the surface. The previous research paper (ARSA 2014) demonstrated evidence of various physical phenomena present at this ancient site and the artificial origin of this hill, which should now be reffered to as a tumulus. At the time of writing the presence of interior cavities in was suspected, possibly consisting of small number of chambers and passageways. This hypothesis is corroborated by the evidence presented in this paper.

Kalayaruan, & Seetawan (Kalayaruan, & Seetawan, 2015, pp. 58-62) reported that new idea from Tao philosophy that Einstein’s relative energy equation that changed (explained super high energy dimension phenomena). We added *-i/c* and *+i/c* in Einstein’s relative energy equation in perturbation energy state that called ying and yang perturbation state. In this paper, They applied new idea call the super relative energy to Compton effect. On the Compton effect equation processed it show how to open relative space and time dimension and super relative space and time high dimension that the dimension

join together in natural (you must knew the concept of Tao philosophy that you were understood idea).and they show the idea called the normalize point of the state.It was shown the behavior relative space and time dimension and super relative space and time high dimension that normalized point of the state.The new idea indicated time travel may be really complete if the physicist or scientist invented the time-machine passed through relative space and time dimension and super relative space and time high dimension

Kalayaruan, & Seetawan (Kalayaruan, & Seetawan, 2018, p. 843) reported that the new ideas called even *2n* and odd *3n* light dimension energy states systems, which were developed from Einstein's relativity energy theory equation. In this study, the major methodology the researchers used was the basic principle ideas or beliefs of some religions such as Buddhism, Christianity, Hinduism, Islam, or Tao in order to get new discoveries. The basic beliefs of each religion - Nivara, God, Ether, Atman, and Tao respectively, were great influential ideas on the researchers to use them greatly in the study to form new ideas from philosophy. Since the philosophy of each religion was alive with deep insight of the physical nature relative energy, it connected the basic beliefs to light dimension energy states systems. Unfortunately, Einstein's original relative energy equation showed only even *2n* light dimension energy states systems (if n = 1,...,∞). But in advance ideas, the researchers multiplied light dimension energy by Einstein's original relative energy equation and get new idea of theoritical physics in odd *3n* light dimension energy states systems (if n = 1,...,∞). Because from basic principle ideas or beliefs of some religions philosophy of each religion, you had to add the media light dimension energy into Einstein's original relative energy equation. Consequently, the simple meaning picture in deep insight showed that you could touch light dimension energy of Nivara, God, Ether, Atman, and Tao by light dimension energy. Since light dimension energy was transferred by Nivara, God, Ether, Atman and Tao, the researchers got the new equation of odd *3n* light dimension energy states systems. Moreover, the researchers expected to be able to solve overview problems of all light

dimension energy in all nature relative energy, which are developed from Eistein's relative energy equation.The finding of the study was called 'super nature relative energy' (in odd *3n* light dimension energy states systems (if n = 1,...,∞)). From the new ideas above you could do the summation of even *2n* and odd *3n* light dimension energy states systems in all of nature light dimension energy states systems. In the future time, the researchers will expect the new idea to be used in insight theoretical physics, which is very useful to the development of quantum mechanics, all engineering, medical profession, transportation, communication, scientific inventions, and technology, etc.

Ranzan (Ranzan, 2018) reported that the historic development of the aether theory from a scientific (rather than a philosophical) perspective. In step-by-step table format, one may follow the chronology of the exploration of various theories of the medium of the universe —the medium, sometimes equated with absolute space. One may follow the twists, turns and detours — the unexpected experimental results, the new theoretical insights, the unfortunate misinterpretations— of one of the most compelling concepts in modern physics. The highlight of the theory development came in the pivotal year of 2002 with the introduction of two testable models based on luminiferous and gravitational aether: One of these employs a dynamic aether as the first luminiferous-and-gravitational aether in the context of the expanding universe model. The other employs the dynamic aether as the first luminiferous-and-gravitational aether in the context of the non-expanding cellular-universe model. In both theories, it is the presence of aether that causes actual relativistic effects.

Gilson (Gilson, 2019) reported that the aim and scope of this book is to provide general readers and students with an introduction to the history of Christian philosophy from Justin Martyr in the second century after Christ up to Nicholas of Cues whose work stands on the border line of a new historical period. We call Christian philosophy the use made of philosophical notions by

the Christian writers of those times. Although it intends to convey some measure of literary information, the emphasis of this book is on philosophy itself.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the research methodology, which is called Jiradeach's quantum hypothesis in high dimensions.It is applied in the next chapter. This is the new concept idea in quantum theory in high dimensions.

1. The author illustrated the idea of Jiradeach's hypothesis that the light dimension contains more than one dimension of light.

2. The author applied Jiradeach's hypothesis in advanced high-dimension quantum fields.

3. The author applied Jiradeach's quantum hypothesis in the Compton effect in high-dimension light energy state systems.

Jiradeach's quantum hypothesis in high dimensions (Kalayaruan, & Seetawan, 2019)

Inspired by Planck's quantization of electromagnetic radiation (Cushing, 1981; Cercignani, 1998; Garrison, & Chiao, 2004). In 1905, Einstein provided a theoretical explanation for the dependence of photoelectric emissions (Kane, 1962; Kupersztych, Monchicourt, & Raynaud, 2001; Weingartner, & Draine, 2001) on the frequency of the incident radiation. He assumed that light is made of corpuscles that carries an energy called photons (Glauber, 1963; Jennewein Simon, Weihs, Weinfurter, & Zeilinger, 2000; Mair, Vaziri, Weihs, & Zeilinger, 2001; Santori, Fattal, Vučković, Solomon, & Yamamoto, 2002). From this explanation, Einstein elucidated a new idea of photoelectric emission on the frequency of the incident in high dimensions of super relative energy.

Jiradeach's quantum hypothesis is the dependence of photoelectric emissions on the frequency of the incident radiation in high light dimension energy state systems in even *2n* light dimension energy state systems, in super relative energy, and in odd $3n_j$ light dimension energy state systems called *2n* photons, ephotons, and $3n_j$ ephotons**.**

1. From chapter 2 Compton effect theorm, the author applied adjust the dimension in Compton effect theorm in high dimensions using Jiradeach's quantum hypothesisis in high dimension. The adjust dimension in Compton effect theorm are called:

1.1. Compton effect in even *2n* light dimension energy states systems which can be illustrated by the elastic scattering called *2n-photon* from a free electron is made of corpuscles each carrying an energy $E_{2n} = h^n v^n$. When a beam of light of frequency v is incident on a metal. Each *2n*-photon transmits all its energy $h^n v^n$ to an electron near the surface. In the process, the *2n*-photon is entirely absorbed by the electron. Thus, the electron will absorb energy only in quanta of energy $h^n v^n$, irrespective of the intensity of the incident radiation.

1.2. Compton effect in super relative energy, which can be illustrated by the elastic scattering called "*ephoton*" (e is abbreviation of ether) from a free electron which is made of corpuscles carrying an energy $E_e = hvc$ .When a beam of light of frequency v is incident on a metal, each ephoton transmits all of its energy hvc to an electron near the surface. In the process, the ephoton is entirely absorbed by the electron. Thus, the electron will absorb energy only in quanta of energy hvc , irrespective of the intensity of the incident radiation.

1.3. Compton effect in odd $3n_j$ light dimension energy states systems, which can be illustrated by the elastic scattering called $3n_j$*-ephoton* from a free electron is made of corpuscles each carrying an energy

$E_{3n_j} = h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$. When a beam of light of frequency v is incident on a metal, each $3n_j$-ephoton transmits all its energy $h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$ to an electron near the surface. In the process, the $3n_j$-ephoton is entirely absorbed by the electron. Thus, the electron will absorb energy only in quanta of energy $h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$, irrespective of the intensity of the incident radiation.

2. In the next chapter the researcher proof Compton effect in even *2n* light dimension energy states, Compton effect in super relative energy and Compton effect in odd $3n_j$ light dimension energy states systems by use Jiradeach's quantum hypothesisis in high dimension.

3. From proof the equations use the conservation of energy and momentum (principle of symmetry).

CHAPTER 4

RESULTS AND DISCUSSION

In this chapter, the author represented 3 topics viz, results and discussion of Compton effect in even *2n* light dimension energy state systems , Compton effect in super relative energy and Compton effect in odd $3n_j$ light dimension energy state systems**.**

Jiradeach's quantum hypothesis will be applied in Compton effect

Compton effect in even 2*n* light dimension energy state systems (Kalayaruan, & Seetawan, 2019)

The author can explain the Compton effect in even 2*n* light dimension energy state systems more effectively than the Compton effect using the old theorem. It variously covers energy that is explained by the Compton effect in high-dimension light energy state systems.

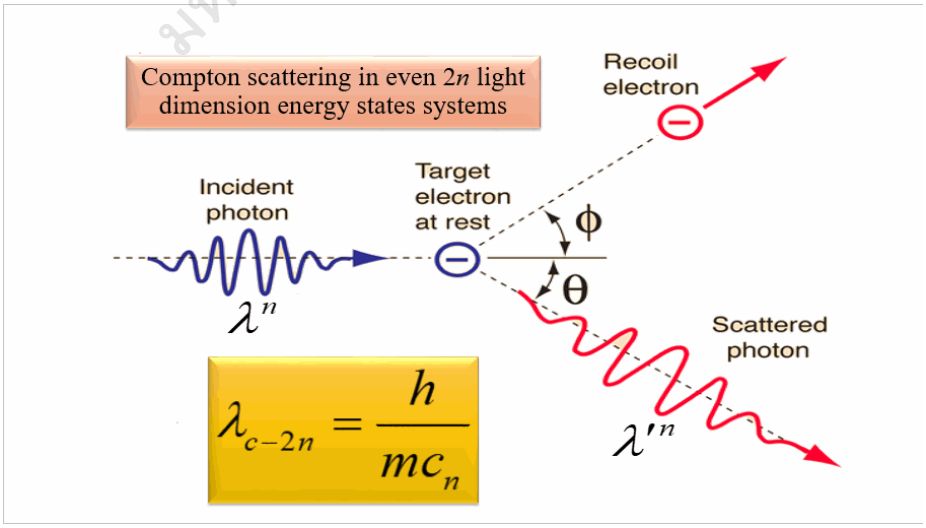

Figure 3 Compton scattering in even *2n* light dimension energy state systems

This scattering process in even 2*n* light dimension energy state systems is illustrated by the elastic scattering of a 2*n* photon from a free electron (Figure 3). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident 2*n* photon of energy in even 2*n* light dimension energy state systems $E_{2n} = h^n v^n$ and the momentum in even 2*n* light dimension energy state systems $p_{2n} = \frac{h^n v^n}{c_n^n}$, the 2*n* photon collides with an electron that is initially at rest. If the *2n* photon scatters with a momentum in even 2*n* light dimension energy state systems $\vec{p}'_{e-2n}$ at an angle θ while the electron recoils with a momentum in even 2*n* light dimension energy state systems $\vec{p}_{e-2n}$, the conservation of linear momentum yields (If $n = 1, 2, ..., \infty$) which leads to

$$\vec{p}_{2n} = \vec{p}_{e-2n} + \vec{p}'_{e-2n}, \tag{56}$$

$$\vec{p}^{\,2}_{e-2n} = (\vec{p}_{2n} - \vec{p}'_{e-2n})^2 = (\vec{p}_{2n})^2 - 2\vec{p}_{2n}\vec{p}'_{e-2n} + (\vec{p}'_{e-2n})^2, \tag{57}$$

$$\vec{p}^{\,2}_{2n} = \vec{p}_{2n}\vec{p}_{2n} = p^2_{2n}$$

$$\vec{p}^{\,2}_{e-2n} = \vec{p}_{e-2n}\vec{p}_{e-2n} = p^2_{e-2n}$$

$$\vec{p}_{2n}\vec{p}'_{e-2n} = p_{2n}p'_{e-2n}\cos\theta$$

$$p_{2n} = \frac{h^n v_n^n}{c_n^n} \qquad p^{\,2}_{2n} = \frac{h^{2n} v^{2n}}{c_n^{2n}}$$

$$p'_{e-2n} = \frac{h^n v'^n_n}{c_n^n} \qquad p'^2_{2n} = \frac{h^{2n} v'^{2n}_n}{c_n^{2n}}$$

$$\vec{p}^{\,2}_{e-2n} = p^2_{2n} - 2p_{2n}p'_{e-2n}\cos\theta + p^2_{e-2n}, \tag{58}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n} v_n^{2n}}{c_n^{2n}} - 2\left(\frac{h^n v_n^n}{c_n^n}\right)\left(\frac{h^n v'^n_n}{c_n^n}\right)\cos\theta + \frac{h^{2n} v'^{2n}_n}{c_n^{2n}}, \tag{59}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n} v_n^{2n}}{c_n^{2n}} - 2\frac{h^{2n} v_n^n v'^n_n}{c_n^{2n}}\cos\theta + \frac{h^{2n} v'^{2n}_n}{c_n^{2n}}, \tag{60}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n}}{c_n^{2n}}(v_n^{2n} + v'^{2n}_n - 2v_n^n v'^n_n\cos\theta), \tag{61}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{2n-sys(0)} = m_{2n-sys}c_n^{2n}, \tag{62}$$

$$E_{e-2n-sys} = \sqrt{\vec{p}_{e-2n}^{\,2} c_n^{2n} + m_{2n-sys}^2 c_n^{4n}}, \tag{63}$$

$$E_{e-2n-sys} = \sqrt{\frac{h^{2n}}{c_n^{2n}}(v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta)c_n^{2n} + \frac{h^{2n}}{h^{2n}} m_{2n-sys(0)}^2 c_n^{4n}}, \tag{64}$$

$$E_{e-2n-sys} = \sqrt{h^{2n}\left(v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}\right)}, \tag{65}$$

$$E_{e-2n-sys} = h^n \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{66}$$

The derivation of this relationship using equation (61) when the energy of the incident and scattered 2*n* photons in even 2*n* light dimension energy state systems is given by $E_{2n} = h^n v_n^n$ and $E'_{2n} = h^n v_n'^n$, respectively. The conservation of energy dictates that

$$E_{2n} + E_{2n-sys(0)} = E'_{2n} + E_{e-2n-sys}, \tag{67}$$

or

$$h^n v_n^n + m_{2n-sys(0)} c_n^{2n} = h^n v_n'^n + h^n \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{68}$$

$$v_n^n + \frac{m_{2n-sys(0)} c_n^{2n}}{h^n} = v_n'^n + \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{69}$$

which in turn leads to

$$(v_n^n - v_n'^n) + \frac{m_{2n-sys(0)} c_n^{2n}}{h^n} = \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{70}$$

squaring both sides of equation (70) and simplifying,

$$\left((v_n^n - v_n'^n) + \frac{m_{2n-sys(0)} c_n^{2n}}{h^n}\right)^2 = \left(\sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}\right)^2, \tag{71}$$

$$(v_n^n - v_n'^n)^2 + 2(v_n^n - v_n'^n)\frac{m_{2n-sys(0)} c_n^{2n}}{h^n} + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}} = v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}, \tag{72}$$

$$v_n^{2n} - 2v_n^n v_n'^n + v_n'^{2n} + 2(v_n^n - v_n'^n)\frac{m_{2n-sys(0)} c_n^{2n}}{h^n} + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}} = v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n \cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}, \tag{73}$$

$$-v_n^n v_n'^n + (v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = -v_n^n v_n'^n \cos\theta\,, \tag{74}$$

$$(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = v_n^n v_n'^n - v_n^n v_n'^n \cos\theta\,, \tag{75}$$

$$(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = v_n^n v_n'^n (1-\cos\theta)\,, \tag{76}$$

$$\frac{(v_n^n - v_n'^n)}{v_n^n v_n'^n}\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = (1-\cos\theta)\,, \tag{77}$$

$$\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = (1-\cos\theta)\,, \tag{78}$$

the author end up with

$$\boxed{\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right) = \frac{h^n}{m_{2n-sys(0)}c_n^{2n}}(1-\cos\theta) = \frac{2h^n}{m_{2n-sys(0)}c_n^{2n}}\sin^2(\frac{\theta}{2})} \tag{79}$$

and the wavelength shift is given by

$$c_n^n\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right) = \frac{c_n^n h^n}{m_{2n-sys(0)}c_n^{2n}}(1-\cos\theta)\,, \tag{80}$$

$$\frac{c_n^n}{v_n'^n} - \frac{c_n^n}{v_n^n} = \frac{h^n}{m_{2n-sys(0)}c_n^n}(1-\cos\theta)\,, \tag{81}$$

$$\boxed{(\Delta\lambda)^n = \lambda'^n - \lambda^n = \frac{h^n}{m_{2n-sys(0)}c^{2n}}(1-\cos\theta) = 2\lambda_{C-2n}^n \sin^2(\frac{\theta}{2})} \tag{82}$$

$$\sin\frac{\theta}{2} = \sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2} = \frac{1-\cos\theta}{2}$$

$$\left(\sin\frac{\theta}{2}\right)^2 = \left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2} = 1-\cos\theta$$

$$\lambda^{n}_{C-2n} = \frac{h^{n}}{m_{2n-sys(0)}c^{n}_{n}}, \left(m_{2n-sys(0)} = m^{n}\right) \quad (83)$$

$$\lambda^{n}_{C-2n} = \frac{h^{n}}{m^{n}c^{n}_{n}} \quad (84)$$

$$\boxed{\lambda_{C-2n} = \frac{h}{mc_{n}}} \quad (85)$$

where $\lambda_{C-2n} = \frac{h}{mc_{n}}$ is called the Compton wavelength of the electron in even 2*n* light dimension energy state systems. This relationship connects the initial and final wavelengths to the scattering angle, confirming Compton's experimental observation that the wavelength shift of X-rays depends only on the angle at which the wavelengths are scattered and not on the frequency (or wavelength) of the incident 2*n* photons.

In summary, the Compton effect in even 2*n* light dimension energy state systems confirms that 2*n* photons behave similar to particles and they collide with electrons similar to material particles.

Compton effect in super relative energy (Kalayaruan, & Seetawan, 2019)

The author can explain the Compton effect in super relative energy more effectively than the Compton effect using the old theorem. It variously covers energy that is explained by the Compton effect in high-dimension light energy state systems (including ether energy).

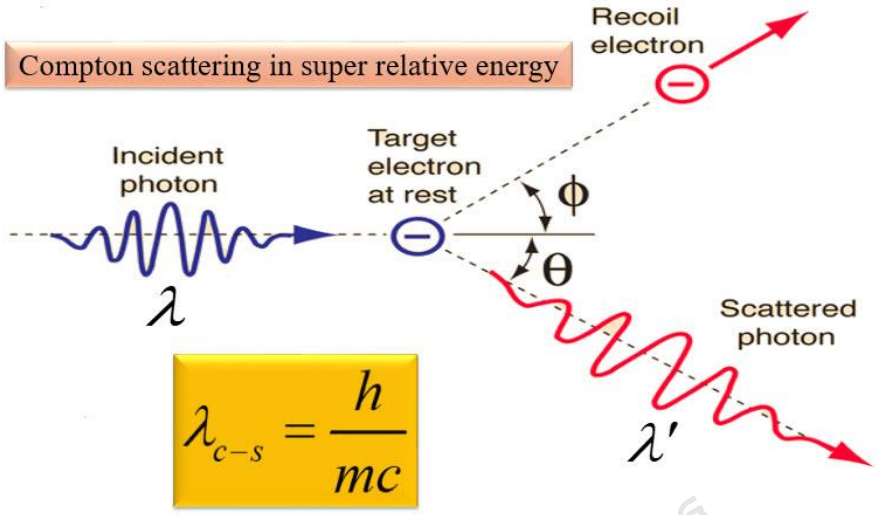

Figure 4 Compton scattering in super relative energy

This scattering process in super relative energy can be illustrated by the elastic scattering of an ephoton from a free electron (Figure 4). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident ephoton of energy in super relative energy $E = hvc$ and the momentum in super relative energy $p = \frac{hv}{c}$, the ephoton collides with an electron that is initially at rest. If the ephoton scatters with a momentum in super relative energy $\vec{p}'$ at an angle θ while the electron recoils with a momentum in super relative energy $\vec{p}_e$, the conservation of linear momentum yields

$$\vec{p} = \vec{p}_e + \vec{p}', \tag{86}$$

which leads to

$$\vec{p}_e = \vec{p} - \vec{p}', \tag{87}$$

$$\vec{p}_e^{\,2} = (\vec{p} - \vec{p}')^2 = (\vec{p})^2 - 2\vec{p}\vec{p}' + (\vec{p}')^2, \tag{88}$$

$\vec{p}^2 = \vec{p}\vec{p} = p^2$ $\quad p = \frac{h\nu}{c}$ $\quad p^2 = \frac{h^2\nu^2}{c^2}$

$\vec{p}'^2 = \vec{p}'\vec{p}' = p'^2$ $\quad p' = \frac{h\nu'}{c}$ $\quad p'^2 = \frac{h^2\nu'^2}{c^2}$

$\vec{p}\vec{p}' = pp'\cos\theta$

$$\vec{p}_e^2 = p^2 - 2pp'\cos\theta + p'^2, \tag{89}$$

$$\vec{p}_e^2 = \frac{h^2\nu^2}{c^2} - 2(\frac{h\nu}{c})(\frac{h\nu'}{c})\cos\theta + \frac{h^2\nu'^2}{c^2}, \tag{90}$$

$$\vec{p}_e^2 = \frac{h^2\nu^2}{c^2} - 2\frac{h^2\nu\nu'}{c^2}\cos\theta + \frac{h^2\nu'^2}{c^2}, \tag{91}$$

$$\vec{p}_e^2 = \frac{h^2}{c^2}(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta), \tag{92}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{s(0)} = mc^3, \tag{93}$$

$$E_e = \sqrt{\vec{p}_e^2 c^4 + m^2c^6}, \tag{94}$$

$$E_e = \sqrt{\frac{h^2}{c^2}(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta)c^4 + \frac{h^2}{h^2}m^2c^6}, \tag{95}$$

$$E_e = \sqrt{h^2c^2\left(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m^2c^4}{h^2}\right)}, \tag{96}$$

$$E_e = hc\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m^2c^4}{h^2}}, \tag{97}$$

The derivation of this relationship using equation (92) when the energy of the incident and scattered ephotons in super relative energy is given by $E = h\nu c$ and $E' = h\nu' c$, respectively. The conservation of energy dictates that

$$E + E_{s(0)} = E' + E_e, \tag{98}$$

or

$$h\nu c + mc^3 = h\nu' c + hc\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m^2c^4}{h^2}}, \tag{99}$$

$$\nu + \frac{mc^2}{h} = \nu' + \sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m^2c^4}{h^2}}, \tag{100}$$

which in turn leads to

$$(v-v')+\frac{mc^2}{h}=\sqrt{v^2+v'^2-2vv'\cos\theta+\frac{m^2c^4}{h^2}}\,, \qquad (101)$$

squaring both sides of (101) and simplifying,

$$\left((v-v')+\frac{mc^2}{h}\right)^2=\left(\sqrt{v^2+v'^2-2vv'\cos\theta+\frac{m^2c^4}{h^2}}\right)^2, \qquad (102)$$

$$(v-v')^2+2(v-v')\frac{mc^2}{h}+\frac{m^2c^4}{h^2}=v^2+v'^2-2vv'\cos\theta+\frac{m^2c^4}{h^2}, \qquad (103)$$

$$v^2-2vv'+v'^2+2(v-v')\frac{mc^2}{h}+\frac{m^2c^4}{h^2}=v^2+v'^2-2vv'\cos\theta+\frac{m^2c^4}{h^2}, \qquad (104)$$

$$-vv'+(v-v')\frac{mc^2}{h}=-vv'\cos\theta\,, \qquad (105)$$

$$(v-v')\frac{mc^2}{h}=vv'-vv'\cos\theta\,, \qquad (106)$$

$$(v-v')\frac{mc^2}{h}=vv'(1-\cos\theta)\,, \qquad (107)$$

$$\frac{(v-v')}{vv'}\frac{mc^2}{h}=(1-\cos\theta)\,, \qquad (108)$$

$$\sin\frac{\theta}{2}=\sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2}=\frac{1-\cos\theta}{2}$$

$$\left(\sin\frac{\theta}{2}\right)^2=\left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2}=1-\cos\theta$$

the author end up with

$$\left(\frac{1}{v'}-\frac{1}{v}\right)=\frac{h}{mc^2}(1-\cos\theta)=\frac{2h}{mc^2}\sin^2\left(\frac{\theta}{2}\right) \qquad (109)$$

and the wavelength shift is given by

$$c\left(\frac{1}{v'}-\frac{1}{v}\right)=\frac{ch}{mc^2}(1-\cos\theta)\,, \qquad (110)$$

$$\frac{c}{v'}-\frac{c}{v}=\frac{h}{mc}(1-\cos\theta)\,, \qquad (111)$$

$$\Delta\lambda = \lambda' - \lambda = \frac{h}{mc}(1-\cos\theta) = 2\lambda_{C-S}\sin^2(\frac{\theta}{2}) \qquad (112)$$

where $\lambda_{C-S} = \frac{h}{mc}$ is called the Compton wavelength of the electron in super relative energy. This relationship connects the initial and final wavelengths to the scattering angle. It confirms Compton's experimental observation: the wavelength shift of the X-rays depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident ephotons.

In summary, the Compton effect in super relative energy effect confirms that ephotons behave similar to particles and they collide with electrons similar to material particles.

Compton effect in odd $3n_j$ light dimension energy state systems (Kalayaruan, & Seetawan, 2019)

The author can explain the Compton effect in odd $3n_j$ light dimension energy state systems more effectively than using the Compton effect in the old theorem. It variously covers energy explained by the Compton effect in high dimension of light energy state systems (including advanced ether energy).

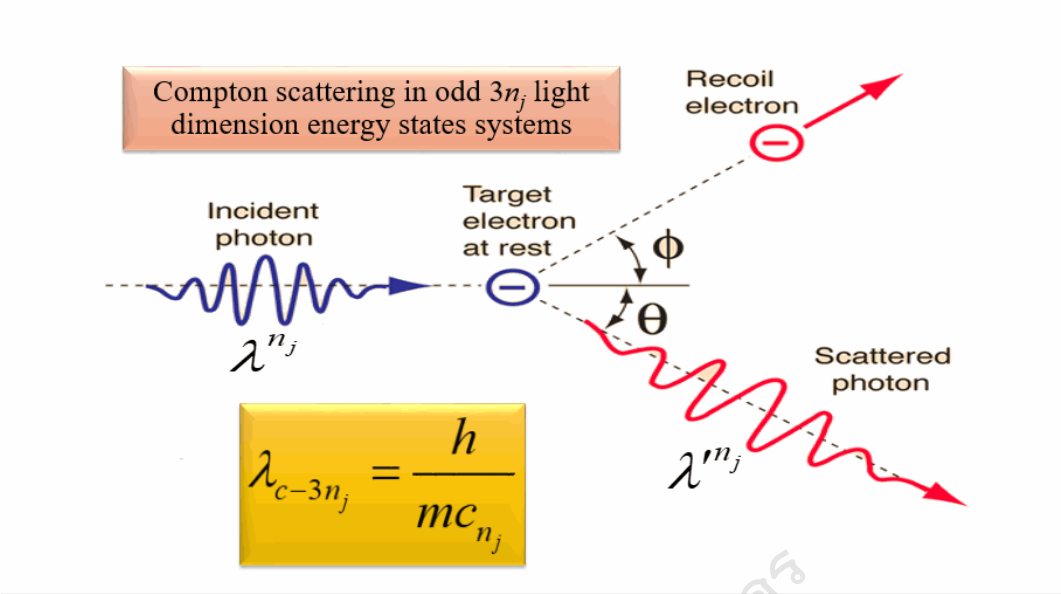

Figure 5 Compton scattering in odd $3n_j$ light dimension energy state systems

This scattering process in odd $3n_j$ light dimension energy state systems can be illustrated by the elastic scattering of a $3n_j$ ephoton from a free electron (Figure 5). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident $3n_j$ ephoton of energy in odd $3n_j$ light dimension energy state systems $E_{3n_j} = h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$ and the momentum in odd $3n_j$ light dimension energy state system $p_{3n_j} = \frac{h^{n_j} v_n^{n_j}}{c_{n_j}^{n_j}}$, the $3n_j$ ephoton collides with an electron that is initially at rest. If the $3n_j$ ephoton scatters with a momentum in odd $3n_j$ light dimension energy state systems $\vec{p}'_{e-3n_j}$ at an angle θ while the electron recoils with a momentum in odd $3n_j$ light dimension energy state systems $\vec{p}_{e-3n_j}$, the conservation of linear momentum yields (If n = 1, 3, 5,..., $2j-1$., $j \geq 1$)

$$\vec{p}_{3n_j} = \vec{p}_{e-3n_j} + \vec{p}'_{e-3n_j}, \tag{113}$$

which leads to

$$\vec{p}_{e-3n_j} = \vec{p}_{3n_j} - \vec{p}'_{e-3n_j}, \tag{114}$$

$$\vec{p}^{\,2}_{e-3n_j} = (\vec{p}_{3n_j} - \vec{p}'_{e-3n_j})^2 = (\vec{p}_{3n_j})^2 - 2\vec{p}_{3n_j}\vec{p}'_{e-3n_j} + (\vec{p}'_{e-3n_j})^2, \tag{115}$$

$$\vec{p}^{\,2}_{3n_j} = \vec{p}_{3n_j}\vec{p}_{2n_j} = p^2_{3n_j}$$

$$\vec{p}^{\,2}_{e-3n_j} = \vec{p}_{e-3n_j}\vec{p}_{e-3n_j} = p^2_{e-3n_j}$$

$$\vec{p}_{3n_j}\vec{p}'_{e-3n_j} = p_{3n_j}p'_{e-3n_j}\cos\theta$$

$$p_{3n_j} = \frac{h^{n_j}v^{n_j}_{n_j}}{c^{n_j}_{n_j}} \qquad p^2_{3n_j} = \frac{h^{2n_j}v^{2n_j}_{n_j}}{c^{2n_j}_{n_j}}$$

$$p'_{e-3n_j} = \frac{h^{n_j}v'^{n_j}_{n_j}}{c^{n_j}_{n_j}} \qquad p'^2_{3n_j} = \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c^{2n_j}_{n_j}}$$

$$\vec{p}^{\,2}_{e-3n_j} = p^2_{3n_j} - 2p_{3n_j}p'_{e-3n_j}\cos\theta + p^2_{e-3n_j}, \tag{116}$$

$$\vec{p}^{\,2}_{e-3n_j} = \frac{h^{2n_j}v^{2n_j}_{n_j}}{c^{2n_j}_{n_j}} - 2\left(\frac{h^{n_j}v^{n_j}_{n_j}}{c^{n_j}_{n_j}}\right)\left(\frac{h^{n_j}v'^{n_j}_{n_j}}{c^{n_j}_{n_j}}\right)\cos\theta + \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c^{2n_j}_{n_j}}, \tag{117}$$

$$\vec{p}^{\,2}_{e-3n_j} = \frac{h^{2n_j}v^{2n_j}_{n_j}}{c^{2n_j}_{n_j}} - 2\frac{h^{2n_j}v^{n_j}_{n_j}v'^{n_j}_{n_j}}{c^{2n_j}_{n_j}}\cos\theta + \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c^{2n_j}_{n_j}}, \tag{118}$$

$$\vec{p}^{\,2}_{e-3n_j} = \frac{h^{2n_j}}{c^{2n_j}_{n_j}}(v^{2n_j}_{n_j} + v'^{2n_j}_{n_j} - 2v^{n_j}_{n_j}v'^{n_j}_{n_j}\cos\theta), \tag{119}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{3n_j-sys(0)} = m_{3n_j-sys}c^{3n_j}_{n_j}, \tag{120}$$

$$E_{e-3n_j-sys} = \sqrt{\vec{p}^{\,2}_{e-3n_j}c^{4n_j}_{n_j} + m^2_{3n_j-sys}c^{6n_j}_{n_j}}, \tag{121}$$

$$E_{e-3n_j-sys} = \sqrt{\frac{h^{2n_j}}{c^{2n_j}_{n_j}}(v^{2n_j}_{n_j} + v'^{2n_j}_{n_j} - 2v^{n_j}_{n_j}v'^{n_j}_{n_j}\cos\theta)c^{4n_j}_{n_j} + \frac{h^{2n_j}}{h^{2n_j}}m^2_{3n_j-sys}c^{6n_j}_{n_j}}, \tag{122}$$

$$E_{e-3n_j-sys} = \sqrt{h^{2n_j}c^{2n_j}_{n_j}\left(v^{2n_j}_{n_j} + v'^{2n_j}_{n_j} - 2v^{n_j}_{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m^2_{3n_j-sys}c^{4n_j}_{n_j}}{h^{2n_j}}\right)}, \tag{123}$$

$$E_{e-3n_j-sys} = h^{n_j}c^{n_j}_{n_j}\sqrt{v^{2n_j}_{n_j} + v'^{2n_j}_{n_j} - 2v^{n_j}_{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m^2_{3n_j-sys}c^{4n_j}_{n_j}}{h^{2n_j}}}, \tag{124}$$

The derivation of this relationship using equation (119) when the energy of the incident and scattered $3n_j$ ephotons in odd $3n_j$ light dimension energy state systems is given by $E_{3n_j} = h^{n_j}v^{n_j}_{n_j}c^{n_j}_{n_j}$ and $E'_{3n_j} = h^{n_j}v'^{n_j}_{n_j}c^{n_j}_{n_j}$, respectively. The conservation of energy dictates that

$$E_{3n_j} + E_{3n_j-sys(0)} = E'_{3n_j} + E_{e-3n_j-sys}, \tag{125}$$

or

$$h^{n_j}v_{n_j}^{n_j}c_{n_j}^{n_j}+m_{3n_j-sys}c_{n_j}^{3n_j}=h^{n_j}v'^{n_j}_{n_j}c_{n_j}^{n_j}+h^{n_j}c_{n_j}^{n_j}\sqrt{v_{n_j}^{2n_j}+v'^{2n_j}_{n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}}$$

, (126)

$$v_{n_j}^{n_j}+\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=v'^{n_j}_{n_j}+\sqrt{v_{n_j}^{2n_j}+v'^{2n_j}_{n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}}\,, \qquad (127)$$

which in turn leads to

$$(v_{n_j}^{n_j}-v'^{n_j}_{n_j})+\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=\sqrt{v_{n_j}^{2n_j}+v'^{2n_j}_{n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}}\,, \qquad (128)$$

squaring both sides of equation (128) and simplifying,

$$(v_{n_j}^{n_j}-v'^{n_j}_{n_j})^2+2(v_{n_j}^{n_j}-v'^{n_j}_{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}=$$

$$v_{n_j}^{2n_j}+v'^{2n_j}_{n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}\,, \qquad (129)$$

$$v_{n_j}^{2n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}+v'^{2n_j}_{n_j}+2(v_{n_j}^{n_j}-v'^{n_j}_{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}=$$

$$v_{n_j}^{2n_j}+v'^{2n_j}_{n_j}-2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}\,, \qquad (130)$$

$$-v_{n_j}^{n_j}v'^{n_j}_{n_j}+(v_{n_j}^{n_j}-v'^{n_j}_{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=-v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta\,, \qquad (131)$$

$$(v_{n_j}^{n_j}-v'^{n_j}_{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=v_{n_j}^{n_j}v'^{n_j}_{n_j}-v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta\,, \qquad (132)$$

$$(v_{n_j}^{n_j}-v'^{n_j}_{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=v_{n_j}^{n_j}v'^{n_j}_{n_j}(1-\cos\theta)\,, \qquad (133)$$

$$\frac{(v_{n_j}^{n_j}-v'^{n_j}_{n_j})}{v_{n_j}^{n_j}v'^{n_j}_{n_j}}\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=(1-\cos\theta)\,, \qquad (134)$$

$$\left(\frac{1}{v'^{n_j}_{n_j}}-\frac{1}{v_{n_j}^{n_j}}\right)\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=(1-\cos\theta)\,, \qquad (135)$$

the author end up with

$$\boxed{\left(\frac{1}{v'^{n_j}_{n_j}}-\frac{1}{v_{n_j}^{n_j}}\right)=\frac{h^{n_j}}{m_{3n_j-sys}}(1-\cos\theta)=\frac{2h^{n_j}}{m_{3n_j-sys}}\sin^2(\frac{\theta}{2})} \qquad (136)$$

and the wavelength shift is given by

$$c_{n_j}^{n_j}\left(\frac{1}{\nu'^{n_j}_{n_j}}-\frac{1}{\nu^{n_j}_{n_j}}\right)=\frac{c_{n_j}^{n_j}h^{n_j}}{m_{3n_j-sys}c_{n_j}^{2n_j}}(1-\cos\theta)\,, \tag{137}$$

$$\sin\frac{\theta}{2}=\sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2}=\frac{1-\cos\theta}{2}$$

$$\left(\sin\frac{\theta}{2}\right)^2=\left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2}=1-\cos\theta$$

$$\frac{c_{n_j}^{n_j}}{\nu'^{n_j}_{n_j}}-\frac{c_{n_j}^{n_j}}{\nu^{n_j}_{n_j}}=\frac{h^{n_j}}{m_{3n_j-sys}c_{n_j}^{n_j}}(1-\cos\theta)\,, \tag{138}$$

$$(\Delta\lambda)^{n_j}=\lambda'^{n_j}-\lambda^{n_j}=\frac{h^{n_j}}{m_{3n_j-sys}c_{n_j}^{n_j}}(1-\cos\theta)=2\lambda_{C-3n_j}^{n_j}\sin^2(\frac{\theta}{2}) \tag{139}$$

$$\lambda_{C-3n_j}^{n_j}=\frac{h^{n_j}}{m_{3n_j-sys}c_{n_j}^{n_j}}\,, \tag{140}$$

$$\lambda_{C-3n_j}^{n_j}=\frac{h^{n_j}}{m^{n_j}c_{n_j}^{n_j}}\,,\ (m_{3n_j-sys}=m^{n_j}) \tag{141}$$

$$\lambda_{C-3n_j}=\frac{h}{mc_{n_j}} \tag{142}$$

where $\lambda_{C-3n_j}=\frac{h}{mc_{n_j}}$ is called the Compton wavelength of the electron in odd $3n_j$ light dimension energy state systems that shows the relationship that connects the initial and final wavelengths to the scattering angle. It confirms Compton's experimental observation that the wavelength shift of X-rays depends only on the angle at which the wavelengths are scattered and not on the frequency (or wavelength) of the incident $3n_j$ ephotons.

In summary, the Compton effect in odd $3n_j$ light dimension energy state systems effect confirms that $3n_j$ ephotons behave similar to particles and they collide with electrons similar to material particles.

1. Study symbolic theory of super relative in high dimension get results

1.1 Jiradeach's hypothesisis

1.2 Jiradeach's hypothesisis was variously in high dimension energy state systems (Yu, & Ford, 2000; Graham, et al., 2003; Wen, 2004; Todorov, et al.,2010; Green, & Gutperle, 1999)

2. Apply symbolic theory of super relative in quantum fields get results

2.1 Jiradeach's quantum hypothesisis in high dimension

2.2 In high-dimension light identifies the dimension of light in more than one dimension (Steer & Parry, 2002; Lewis, & Lieberman, 1991; Reynaud, Kržič, Greger, & Stelzer, 2008; Campbell-Smith, Ellis, Mavromatos, & Nanopoulos, 1999; Burgess, Maharana, & Quevedo, 2011; Rubakov, 2001; Ma, Rajasekaran, & Sarkar, 2000).

2.3 High-dimension light demonstrates wave-particle duality; moreover and is consistent based on Einstein's research on the nature of light (Wolf, 1979; Hendry, 1980; Ghose, Home, & Agarwal, 1991; Stuewer, 2006)

2.4 The author proved the Compton effect in even $2n$ light dimension energy states, in super relative energy, and in odd $3n_j$ light dimension energy state systems by implementing Jiradeach's quantum hypothesis in various high-dimension energy state systems.

2.5 The equations (the Compton effect in even $2n$ light dimension energy state systems, in super relative energy, and in odd $3n_j$ light dimension energy state systems) were proved using the conservation of energy and momentum (principle of symmetry), which were consistent and symmetrical.

CHAPTER 5

CONCLUSION

1. The purpose of this thesis symbolic theory of super relative was to study the philosophy of energy natural systems. The energy of natural systems was developed from Einstein's energy equation. The author proposed the *2n* and odd $3n_j$ light dimension energy state systems using Jiradeach's hypothesis.

1.1 Light dimensions were developed from Einstein's theory of relativity. We applied the Compton effect to high-dimension light energy state systems and implemented Jiradeach's quantum hypothesis in high-dimension light energy state systems using $2n$ photons, ephotons, and $3n_j$ ephotons in high-dimension Compton wavelengths.

2. In all cases, applying symbolic theory of super relative in quantum fields, the process equations contained the Compton wavelength of electrons in even 2n light dimension energy state systems, in super relative energy, and in odd 3nj light dimension energy state systems. This relationship connects the initial and final wavelengths to the scattering angle, confirming that Compton's experimental observation in high dimensions revealed that the wavelength shift depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident 2n photons, ephotons, and 3nj ephotons. The results showed that 2n photons, ephotons, and 3nj ephotons in high dimensions, confirming that photons behave similar to electrons in materials. The author applied symbolic theory of super relative, which is the beginning of the transformation of matter into open space and time in high dimensions.

2.1 In all cases, the process equations used the principle of symmetry.

2.2 In the future, these findings may be used to in the innovation called the "time machine."

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APPENDICE A

INTERNATIONAL CONFERENCES

1. **Jiradeach Kalayaruan** and Tosawat Seetawan, *Sakon Nakhon Rajabhat University International Conference (SNRU – IC 2015)*, 24 July 2015, Sakon Nakhon, Thailand
2. **Jiradeach Kalayaruan** and Tosawat Seetawan**,** *20th International Conference on Theoretical Physics (ICTP 2018),* 27-28 August 2018, Hotel Pennsylvania, New York, USA

APPENDICE B

PUBLICATIONS

1. **Jiradeach Kalayaruan** and Tosawat Seetawan, "Super relative energy apply in Compton effect process", ***Paper presented at the Proceeding Book of Sakon Nakhon Rajabhat University International Conference, Sakon Nakhon Rajabhat University, Thailand.***, SO036 (2015) 58-62

2. **Jiradeach Kalayaruan** and Tosawat Seetawan, "The Introduction of the Revolution Einstein's Relative Energy Equations in Even 2n and Odd 3n Light Dimension Energy States Systems". ***International Journal of Physical and Mathematical Sciences***, 12 (2018), 843

3. **Jiradeach Kalayaruan** and Tosawat Seetawan, "The Compton Effect on Open Hgh Dimension of Ligh Energy State Systems", ***IOSR Journal of Applied Physics (IOSR - JAP).*** 11(5) (2019) pp. 01 – 21 (Open Scholar)

Proceeding Book of Sakon Nakhon Rajabhat University International Conference

Super relative energy apply in Compton effect process

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ABSTRACT

Some physicist knew the famous Einstein's relative energy equation not complete because it is not stability for explained in high dimension relative energy physical. We got new idea from Tao philosophy that Einstein's relative energy equation that changed (explained super high energy dimension phenomena). We added -i/c and +i/c in Einstein's relative energy equation in perturbation energy state that called ying and yang perturbation state. In this paper, We applied my new idea call the super relative energy to Compton effect. On the Compton effect equation processed it show how to open relative space and time dimension and super relative space and time high dimension that the dimension join together in natural (you must knew the concept of Tao philosophy that you were understood my idea).and We show the idea called the normalize point of the state.It was shown the behavior relative space and time dimension and super relative space and time high dimension that normalized point of the state.The new idea indicated time travel may be really complete if the physicist or scientist invented the time-machine passed through relative space and time dimension and super relative space and time high dimension.

Keywords: Tao, Tao Zone, super relative energy, ying, yang, relative space and time dimension, Super relative space and time high dimension, the normalize point of the state,time travel, the time machine

INTRODUCTION

We though the famous Einstein's equation relative energy ($E=mc^2$) that not stability state in super high dimension relative energy physical. What is the secret of nature energy that Einstein don't know? In this paper, We would talk about Tao philosophy that it was explained the phenomena of nature that Einstein don't known or he forgot thinking. We got the new idea about " **the hide secret parameter**". We applied the new idea to scattering the connected between relative space and time dimension and super relative space and time high dimension to Compton effect that It was explained successful more complete phenomena. If we wanted to pass through there dimension. We show idea the normalized point of the state. That scientist or physicist invented the time machine on time travel may be possible if you were understand get idea that we introduced the secret of nature of super relative energy that we presented continually.

MY NEW IDEA

Before you were understood my new idea that we applied to Einstein's relative equation you would understood the concept of Tao philosophy that you must knew the phenomena of nature relation. It was deep mind to understand physical there but It were not easy and not too difficult.

Tao philosophy could explain in physical clue from above. Lao Zi Taoism savant get tell that there is the thing stays the one thing exists before the world, be not the material be not the mind. The thing such calls that **Tao zone or Tao. It was not measured direct but it could transfer the energy state to measure**. (Kaweevong, 2006).

Fig. 1 Tao diagram were presented hide perturbation light of Yin and Yang energy state of Tao philosophy and show perturbation state of Einstein's relative energy equation

We could saw from fig.1 and considered Tao diagram it were presented Yin and Yang and perturbation state of relative energy If the Enstein's relative energy equation was $E=\frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}$ and show perturbation state of Einstein's relative energy equation. But we saw in the fig.1. **If -i/c and +i/c is hide perturbation light of Yin and Yang energy state of Tao philosophy** there were transferred. That we idea was introduced applied to Einstein's relative equation energy. It was developed new equation by

$$E=\frac{mc^2}{\sqrt{(+\frac{i}{c})(1-\frac{v^2}{c^2})(-\frac{i}{c})}} \quad (1)$$

$$E=\frac{mc^2}{\sqrt{(\frac{1}{c^2})(1-\frac{v^2}{c^2})}} \quad (2)$$

$$E=\frac{mc^2}{\frac{1}{c}\sqrt{(1-\frac{v^2}{c^2})}} \quad (3)$$

$$E=\frac{mc^3}{\sqrt{(1-\frac{v^2}{c^2})}} \quad (4)$$

If v ‹‹ c the resulted energy equation was

$$E=mc^3 \quad (5)$$

We called this equation is "super relativity energy".

From above, we found the new parameter and hypothesis of physics equation imperturbation state was

$$\frac{1}{\sqrt{(-\frac{1}{c})(1-\frac{v^2}{c^2})(+\frac{1}{c})}} \quad (6)$$

it called "Linear perturbation light contact states"

$$\frac{1}{\sqrt{(-\frac{1}{ic})(1-\frac{v^2}{c^2})(+\frac{1}{ic})}} \quad (7)$$

it called "Reverse perturbation light contact states"

However "Linear perturbation light contact states" and "Reverse perturbation light contact states" were not discussed here. There were long details and confuses. In this paper it was talked about the concept of there and shown above.

My new idea add to Compton Effect to open the between dimension.

In Compton 1923 experiment, Compton provided the most conclusive confirmation of the particle aspect of radiation. By scattering X-rays off free electrons, he found that the wavelength of the scattered is larger than the wavelength of the incident radiation. This can be explained only by assuming that the X-ray photons behave like particles. Compton succeeded in explaining his experimental results only after treating the incident radiation as a stream of particles-photons-colliding elastically with individual electrons. But in explained in phenomena of super high dimension space and time it were not used old processed by Compton effect explained to open relative space and times dimension that connected between super relative space and time dimension. I introduced the idea that add to Compton effect process be successfully more old Compton effect processed. When explained in the condition processed. It was beyond that open dimension join together in natural between relative dimension space and times and super high relative dimension space and times by Tao Zone or super high dimension zone saw from fig.2 that.

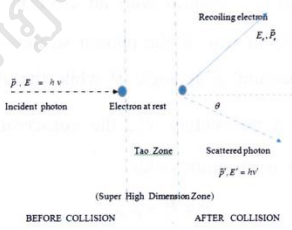

Fig.2 Compton scattering of a photon (of energy $h\nu$ and momentum $\bar{p}$) off a free, stationary electron in Tao zone or super high dimension zone, the photon is scattered at angle θ with energy $h\nu'$.

It was complicated and mysterious because in nature on Tao Zone or super high dimension zone the super energy from Tao zone that was not measured direct but **there could transfer energy by the speed of light. (it was measured!! but not measure direct it natural of Tao (or Tao Zone))**. It was the top secret of nature of Tao. Scientists don't

know how to happen that the phenomena affected to Einstein's energy equation. It was not stable in super high dimension. But It was explained by Tao philosophy reason why Einstein's energy equation not explained in super high relative space and times.

Next, from above you were got the concept idea from Tao philosophy. I invited you to beyond derive the equation continued by consider that the incident photon, of energy see fig.2 $E = h\nu$ and momentum $p = h\nu / c$, collides with an electron that is initially at rest. If the photon scatters with a momentum $\vec{p}'$ at angle θ while the electron with a momentum $\vec{P}_e$, the conservation of linear momentum yields

$$\vec{p} = \vec{P}_e + \vec{p}', \quad (8$$

which leads to

$$\vec{P}_e^2 = (\vec{p} - \vec{p}')^2 = p^2 + p'^2 - 2pp'\cos\theta = \frac{h^2}{c^2}(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta) \quad (9)$$

Let us now turn to the super relative energy conservation (5). The energies of the electron before and after the collision are given, respectively, by

$$E_0 = m_e c^3 \quad (10)$$

$$E_e = \sqrt{\vec{P}_e^2 c^2 + m_e^2 c^6} = h\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2 c^6}{h^2}}; \quad (11)$$

in deriving this relation, we have used (9). Sine the energies of the incident and scattered photons are given by $E = h\nu$ and $E = h\nu'$, respectively, conservation of energy dictates that

$$E + E_0 = E' + E_e \quad (12)$$

or

$$h\nu + m_e c^3 = h\nu' + h\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2 c^6}{h^2}} \quad (13)$$

which in turn leads to

$$\nu - \nu' + \frac{m_e c^3}{h} = \sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2 c^6}{h^2}} \quad (14)$$

Squaring both sides of (14) and simplifying, we end up with

$$\frac{1}{\nu'} - \frac{1}{\nu} = \frac{2h}{m_e c^3}\sin^2\frac{\theta}{2} \quad (15)$$

Hence the wavelength shift is given by

$$\Delta\lambda = \lambda' - \lambda = \frac{h}{m_e c^2}(1 - \cos\theta) = 2\lambda_J \sin^2\frac{\theta}{2} \quad (16)$$

$\lambda_J = \frac{h}{m_e c^2}$ is called **"The new wavelength of the electron that Compton effect would be successfully more in explained in super high relativity space and times"**.

The normalize point of the state

We would like to show the idea how to open relative dimension and super relative dimension that the dimension joined together. I called **the normalize point of the state.** If $E_{re} = mc^2$ and $E_{super} = mc^3$ it clouded equal if the state E_{re} mean relative energy, E_{super} mean Super relative energy. Take it equal when you wanted to connect between relative energy and Super relative energy

$$mc^2|\Psi\rangle = mc^3|\Psi\rangle \quad (17)$$

$$1|\Psi\rangle = c|\Psi\rangle \quad (18)$$

the normalize point of the state show that we could connect relative energy and super relative energy and opened between relative space and time dimension and Super space and time high dimension. If we were invent time machines. We could pass through the space and time and time travelled by time machines were real dream. It was cleverly and tricks the challenge of human to understand the secret of nature of space and time. This was the develop of the Human would life conform to Tao if we want understand the nature. It is a peaceful to all your mind gets to the world and all universe by science or physics Theory.

CONCLUSION

The concept idea we got from this paper was the Super relative energy that action from nature called Tao Zone. We got new idea applied add in Einstein's relative energy equation because in super high relative energy space and times Einstein's relative energy equation could not stability and cannot explained the phenomena in super high dimension space and times. We used its to open space and time in super high relative dimension of space and time if we invented time-machine. It was necessary to connect relative dimension and super high dimension if we wanted to pass through the space and times. The idea was got from Tao Philosophy. The normalize point of the state show that we could connect relative energy and super relative energy and opened between relative space and times dimension and super high relative space and times. It was cleverly and tricks the challenge of human to understand the secret of nature of space and time. This is the develop of the Human would life conform to Tao if we want understand the nature. It is a peaceful to all your mind gets to the world and all universe by science or physics Theory.

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The Introduction of the Revolution Einstein's Relative Energy Equations in Even 2n and Odd 3n Light Dimension Energy States Systems

Jiradeach Kalayaruan, Tosawat Seetawan

***Abstract*—**This paper studied the energy of the nature systems by looking at the overall image throughout the universe. The energy of the nature systems was developed from the Einstein's energy equation. The researcher used the new ideas called even 2n and odd 3n light dimension energy states systems, which were developed from Einstein's relativity energy theory equation. In this study, the major methodology the researchers used was the basic principle ideas or beliefs of some religions such as Buddhism, Christianity, Hinduism, Islam, or Tao in order to get new discoveries. The basic beliefs of each religion - Nivara, God, Ether, Atman and Tao respectively, were great influential ideas on the researchers to use them greatly in the study to form new ideas from philosophy. Since the philosophy of each religion was alive with deep insight of the physical nature relative energy, it connected the basic beliefs to light dimension energy states systems. Unfortunately, Einstein's original relative energy equation showed only even 2n light dimension energy states systems (if n = 1,...,∞). But in advance ideas, the researchers multiplied light dimension energy by Einstein's original relative energy equation and get new idea of theoritical physics in odd 3n light dimension energy states systems (if n = 1,...,∞). Because from basic principle ideas or beliefs of some religions philosophy of each religion, you had to add the media light dimension energy into Einstein's original relative energy equation Consequently, the simple meaning picture in deep insight showed that you could touch light dimension energy of Nivara, God, Ether, Atman and Tao by light dimension energy. Since, Light dimension energy were transferred by Nivara, God, Ether, Atman and Tao, the researchers got the new equation of odd 3n light dimension energy states systems. Moreover, the researchers expected to be able to solve overview problems of all light dimension energy in all nature relative energy, which are developed from Eistein's relative energy equation. The finding of the study was called "super nature relative energy"(in odd 3n light dimension energy states systems (if n = 1,...,∞)). From the new ideas above you could do the summation of even 2n and odd 3n light dimension energy states systems in all of nature light dimension energy states systems. In the future time,the researchers will expect the new idea to be used in insight theoretical physics , which is very useful to the development of quantum mechanics, all engineering, medical profession, transportation ,communication, scientific inventions and technology, etc.

***Keywords*—**2n light dimension energy states systems effect, Ether, even 2n light dimension energy states systems, nature relativity, Nivara, odd 3n light dimension energy states systems, perturbation points energy, points energy, relax point energy states systems, stress perturbation energy states systems effect, super relative energy.

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I. Introduction

EINSTEIN tried to explain true in nature system by physics. From relativity theory of Einstein. The famous equation seeking energy pictures in nature is [1].

$$E = mc^2 \tag{1}$$

when E = relativity energy in one state system in this light dimension energy, m = the mass energy in this nature state system, c = the speed of light energy in this nature state system.

In this paper shows the new idea revolution Einstein's relative energy equation. Discuss and review (1) discover the new idea call the super nature relativity energy.

II. Revolution Einstein's Relative Energy Equation

A. The Idea of Even 2n Light Dimension Energy States Systems and Odd 3n Light Dimension Energy States Systems [2]

1. even 2n light dimension energy states systems are the state of dual light dimension energy states systems in 2n light dimension energy states systems. (n = 1, 2, ..., ∞)
2. odd 3n light dimension energy states systems are the state of odd light dimension energy states systems in 3n light dimension energy states systems. (n = 1, 2, ..., ∞)

B. Apply and New Discover Formula Energy

1. Even 2n Light Dimension Energy States Systems and Important Philosophy Method

Which Einstein has fixed seek energy value generally in nature system that light speed has the source from way system though philosophy of Einstein by oneself. By m explains in philosophy system be mind (don't forget that we are entering to way philosophy mental idea of Einstein which him brings to apply in overall image of energy system in the nature) and c is the thought that rather profoundly is the speed of the mind in who want to connect feeling to between each other. Which is something mass speed media of the mind like relatively or if speech physical physics way is the energy follows (1) be the energy in nature one system like relatively. Which still not the energy in manner absolute nature because researcher gets new idea seeing philosophy from even 2n light dimension energy states systems. There is new discoverly idea development from Einstein's relative energy equation (see Appendix and (2)) but last for not the last answer idea in theoretical physics that complete energy in all nature. Because researcher has the assumption that the mass smallest energy particle and light energy systems have

stress perturbation energy effect to each other and the basis structure of energy particles in even 2n light dimension energy states systems have missing basis geometry energy structures from perturbation points energy [14], [19], [20]. There are not relax point energy states systems between symmetry points energy by another forces like. (hint; be the new idea string theory discover). The other reasons the dual basis structures energy system use the another one to connect two points energy system for consecutive groups energy system and other groups energy system in dual energy system the answer why relative energy theory in (1) and dual light dimension energy states systems in 2n light dimension energy states systems are fail and not use explain in all quantum fields energy.This is the answer of Einstein why he uses the relative energy applied in quantum fields energy are not finish. There are called even 2n light dimension energy states systems effect. The equation even 2n light dimension energy states systems as below,

$$E_{2n-sys} = m_{2n-sys} c_n^{2n} \quad \text{if n} = 1, 2, \ldots, \infty \qquad (2)$$

when E_{2n-sys} = the even 2n light dimension energy states systems like relativity, n = the light dimension energy states system (n = 1, 2, …, ∞), m_{2n-sys} = mass energy in even 2n light dimension energy states systems, c_n^{2n} = even 2n light dimension energy states systems speed in power 2n.

2. Odd 3n Light Dimension Energy States Systems and Important Philosophy Method for Idea

Before you know this idea. You must know from researcher idea as follow

1. Buddha told that the dharma that really exist to come to already before but His Majesty came to meet of those originally theoretically in nature system.Buddha was ultimate truth was like Buddha in all past before at sees the truth like. His Majesty and conform to Buddha throughout universal all of universe as same as in the past, now, future.Call Buddhism way that the nirvara [3].
2. Lao Zi Taoism savant get tell that there are the thing stays the one thing exists before the world, be not the material be not the mind. The thing such called that Tao [4].
3. In India, there was the belief about Atman. Which exist the time, which the thing that rupture from source,and Hindu practitioner became to source from rupture Atman [5].
4. Cristian way, there was something speech exists the one thing exist before the thing whole call that a God, exist through the time. Which Islam way that had the belief about a god. There was the idea that resemble [6].
5. Physical physics had the idea of the one thing in the nature was ethers energy states system. The things that exist everywhere in all universes theology, exist already in every things through times. Theology exists before. The things haD whole could not measurable, could not dress up.But There was transfer the energy in every spaces and times in the nature.(In this paper ethers transfer are the light energy in each state system, see appendix) [7]-[10].

The main issues 1-5 can use apply in the theoritical physics. Buddhism has the nivara, scientific have the thing that call that ether, in the Christianity and the Islam have appreciating God, in the Hinduism has the one thing at calls that Ataman, in Tao sect has the thing that calls that Tao, etc.Show that insight or profoundness purposes religion 1-4 and 5 (physical physics) from deep meaning is the same ultimate [11].

Nivara energy = Tao energy = Atman energy = God energy = Ether energy

But in this paper is affiliated by theoritical physics.researcher used the meaning of ether energy from 5.

From (1) and detail reasons (2). The ethers energy can transfer energy by light energy in a energy state system in (1) and even 2n light dimension energy states systems (2).They have get new formula are,

$$E = mc^3 \qquad (3)$$

when E = the super nature relativity energy in one system light dimension energy state, m = the mass energy of the system in this nature, c = the speed energy in the light energy in this nature system.

Which is the new influential idea of theoretical physics jigsaw puzzle development relativity theory of the researcher

As deliver a speech come to above energy equation (1) totals up in nature system that Einstein presents that give not answer with in some experiment in laboratory, (e.g. neutron experiment) If apply in unity fields theory. Which Einstein has will the attempt to will total up energy all in nature system reaches to keep together in the same rule. Which matters of fact reason all in nature system deeply that cannot use the energy totals up in the system like. Which is the energy totals up like relatively not the energy totals up in nature system like absolute. In now at the institute, CERN, in The United States of America meets the experiment in theory unity field test of Einstein effectively would not explain by Einstein's equation energy nature system in complete answer [15], [16]. (hint; the reason idea are by use string theory). Which the researcher will present the theory that develop to add idea from relativity theory of Einstein as follows be "Super nature relative theory" to explain something that Einstein's equation energy not explain. This research will present energy nature system like absolute in nature energy system generally of all universes. Which is the answer of theory unity field energy system. The researcher has system philosophy idea profoundly be from the Buddhism and another religion that have idea conform astonishingly in the answer of all nature universal energy systems throughout in equation one system (by get the idea energy system in all nature universe energy system theology). Which show get loud the equation as follows,

$$E_{3n-sys} = m_{3n-sys} c_n^{3n} \quad \text{if n} = 1, 2, \ldots, \infty \qquad (4)$$

when E_{3n-sys} = the odd 3n lights dimension energy states systems in super relative theory, n = the light dimension

energy states systems(n=1, 2,... ∞), m_{3n-sys} = the mass energy of the odd 3n lights dimension energy state systems, c_n^{3n} = the speed energy of the odd 3n lights dimension energy state systems in power 3n.

From (3) discovery the new idea basis quantum fields structure in very smallest particle energy state systems. Maybe the last answer idea in theoretical physics that complete energy states system nature in all universes. Because researcher has the assumption that the mass smallest light particles energy systems have stress perturbation energy states systems are relax point energy states systems from dual system to by another one point energy state system (It be ether point energy state system) and connect dual energy states systems by light ether point energy state system. These systems have restructures by equilateral triangle basis structures symmetry energy states systems [17], [18]. The idea tell equilateral triangle basis structures symmetry particles energy states systems can renormalize the basis structure three points relativity energy states systems. Likewise odd 3n lights dimension energy state systems, too. By each the group equilateral triangle basis structures relative symmetry particles energy states systems consecutive energy. (hint; the new idea in string theory).

3. Summation of All Even 2n Light Basis Dimension Energy States Systems

$$\sum_{n=1}^{\infty} E_{2n-sys} = \sum_{n=1}^{\infty} m_{2n-sys} c_n^{2n} \quad \text{if n = 1, 2, ..., } \infty \qquad (5)$$

when $\sum_{n=1}^{\infty} E_{2n-sys}$ = summation of all even 2n light dimension energy states systems in system like relativity, n = light dimension energy in each state system (n=1, 2,... ∞), m_{2n-sys} = the summation mass energy of the even 2n light dimension energy states systems in each state, c_n^{2n} = the summation light energy speed in even 2n light dimension energy states systems in each state

4.Summation of All Odd 3n Lights Basis Dimension Energy States Systems

$$\sum_{n=1}^{\infty} E_{3n-sys} = \sum_{n=1}^{\infty} m_{3n-sys} c_n^{3n} \quad \text{if n = 1, 2, ..., } \infty \qquad (6)$$

when $\sum_{n=1}^{\infty} E_{3n-sys}$ = the summation of all odd 3n lights dimension energy state systems in system like relativity, n = light dimension energy in each state system (n=1, 2,... ∞), m_{3n-sys} = the summation mass energy of odd 3n light dimension energy states systems in each state, c_n^{3n} = the summation speed energy of odd 3n light dimension energy states systems in each state.

III. Results and Discussion

The reasonableness in great unity base on nature relative energy states systems from revolution Einstein's relative energy equation. The researcher shows the new idea of even 2n lights dimension energy states systems and odd 3n lights dimension energy states systems are

1. Even 2n lights dimension energy states systems are the states of dual light dimension energy states systems in 2n light dimension energy states systems (n = 1, 2, ..., ∞) but not the last answer idea in theoretical physics that show complete energy nature states system (by introduce trip reason). Because researcher find in this idea that the mass smallest particles energy states system and light energy states systems in even 2n lights dimension energy states systems have stress perturbation energy states systems effect to each other and missing basis geometry structures energy states systems from perturbation points energy states systems. The dual basis structures energy states systems use the another one to connect two points energy states systems for consecutive group energy sates systems. The answer problem of Einsteins relative energy states systems why relative energy theory in (1) and even 2n lights dimension energy states systems are fail and not use explain applied in quantum fields energy states systems not finish..
2. Odd 3n light dimension energy states systems in 3n light dimension energy states systems. (n = 1, 2, ..., ∞). The new influential idea of theoretical physics jigsaw puzzle development relativity theory get the answer by this assumption be equilateral triangle basis structure symmetry energy particles states system (Einstein's relative energy problem states systems has clear).
3. Get new idea how to know the basis summation of all even 2n light dimension energy states systems.
4. Get new idea how to know the basis summation of all odd 3n light dimension energy states systems.
5. Hence, from 1-4 the theory not conflict Pauli exclusion principle, Wolfgang Ernst Pauli, (1900- 1958). Be super advance knowledge in apply in super theoretical physics.

IV. Conclusion

Summarize finally the source of even 2n light dimension energy states systems to the odd 3n lights dimension energy states systems. There are called the even 2n light dimension energy states systems like relativity equation and the odd 3n lights dimension energy states systems in super relative theory. That the researcher thinks to go up clear Einstein's relative energy problem states systems and get the answer overview understand of all energy relative theory in the nature all universes.The dreaming of Einstein was tried to explaine true in all nature energy system by physics in the same rule be possible. The researcher thinks this thing will be base energy systems phenomenon of theory physics in every knowledge scientific theory twig development (branch all physics, branch all chemistry, branch all biology) engineering twig all sides, medical profession side or even the idea from super nature relative energy theory that applies in the social for example the quarrel about his distribution divides us in the measurement holds ideology way religion faith. In fact, already way philosophy idea from a religion is from same rhizome only different in the environment in the revelation spreads from the environment in the social, way

geography states, separately but really already every a religion totals up to unite can which peace, calmness, morals system in the social should happen to the human being really. Especially in the state now the condition lacks the energy, nature condition was destroyed, the people starves to lack of nutrition, crime problem and social other problem day by day extremely multiply the violence increasingly. As a result, might touch resuscitate go up in the sense of the social builds the human being that meets or confront with all problem is in both of sides material development and the mind equilibrium, include in the cure heals both of social material way and the mind also. Hope that super nature relativity theory has that the researcher originates and present this may sparkle intelligence though wake the mind, child, youth, people everybody, human all being are born the inspiration is the behavior that has sacrificed others with one's full effort the ability and total up united power for build peace calmness happen to all universes.

APPENDIX

1. Prove (2)
   From

$$E = mc^2 \tag{7}$$

$$(E)^n = (mc^2)^n \tag{8}$$

$$E^n = m^n c^{2n} \tag{9}$$

$$E_{2n-sys} = m_{2n-sys} c_n^{2n} \tag{10}$$

From (8) E^n replace by E_{2n-sys} the even 2n light dimension energy states systems like relativity (The meaning of the equation is presented the even 2n light dimension energy states systems like relativity).

m^n replace by m_{2n-sys} in the even 2n light dimension energy states systems like relativity (The meaning of the equation is presented the even 2n light dimension energy states systems like relativity).

c^{2n} replace by c_n^{2n} in the even2n light dimension energy states systems like relativity (The meaning of the equation is presented the even 2n light dimension energy states systems like relativity).

2. Prove (4)
   From

$$E = mc^3 \tag{11}$$

$$(E)^n = (mc^3)^n \tag{12}$$

$$E^n = m^n c^{3n} \tag{13}$$

$$E_{3n-sys} = m_{3n-sys} c_n^{3n} \tag{14}$$

From (10) E^n replace by E_{3n-sys} the odd 3n light dimension energy states systems like relativity (The meaning of the equation is presented the odd 3n light dimension energy states systems like relativity).

m^n replace by m_{3n-sys} in the odd 3n light dimension energy states systems like relativity (The meaning of the equation is presented the odd 3n light dimension energy states systems like relativity).

c^{3n} replace by c_n^{3n} in the odd 3n light dimension energy states systems like relativity (The meaning of the equation is presented the odd 3n light dimension energy states systems like relativity).

3. Explanation system condition note of part ether calculates

From equation energy system nature formula again generally like one at Einstein's get to that [12],

$$E = \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}} \tag{15}$$

when E = relativity energy in one state system in this light dimension energy, m = the mass energy in this nature state system, c = the speed of light energy in this nature state system, v = mass velocity energy in this nature state system, If v<<c in seeking value energy system in nature system, generally $E = mc^2$ straight follow (1) and be valuable [12].

$$k = \frac{1}{\sqrt{1-\frac{v^2}{c^2}}} \tag{16}$$

when k = the perturbation ether energy state in one system, c = the speed of light energy in this nature system, v = mass velocity energy in this nature state system from the knowledge about the ether as deliver a speech come to before that in absolute system will can show system ether condition as follows from (16) lead c multiply by through (don't forget that value c this the condition c in ether system) will get the equation

$$ck = \frac{c}{\sqrt{1-\frac{v^2}{c^2}}} \tag{17}$$

which from (17) write algebraic new equation,

$$\frac{k}{1/c} = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}} \tag{18}$$

give $\frac{k}{1/c}$ write replace with k_e will get new equation

$$k_e = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}} \tag{19}$$

which k_e call that "the constant of the behaviour condition light ether dimension energy state system" from (1) lead value, multiply by through the equation

$$k_e E = k_e mc^2 \tag{20}$$

from (20) replace $k_e E$ this with the symbol E (don't forget that value this the energy that have behaviour condition light ether dimension energy state system) get,

$$E = k_e mc^2 \tag{21}$$

$$E = \frac{mc^2}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}} \tag{22}$$

$$E = \frac{mc^3}{\sqrt{1-\frac{v^2}{c^2}}} \tag{23}$$

If $v \ll c$ in seeking value call super relativity energy state in one state system (there is ether energy condition stays with) will get equation [13].

$$E = mc^3 \tag{24}$$

which be the super nature relativity energy in one light dimension energy state system

2. Explanation the odd 3n lights dimension energy states systems in super relative theory

From (15) replace $E = mc^2$ by $E_{2n-sys} = m_{2n-sys} c_n^{2n}$, $v = v_{2n-sys}$, $c = c_{2n-sys}$ get the equation

$$E_{2n-sys} = \frac{m_{2n-sys} c_n^{2n}}{\sqrt{1-\frac{v_{2n-sys}^2}{c_{2n-sys}^2}}} \tag{25}$$

when E_{2n-sys} = the even 2n light dimension energy states systems like relativity, n = the light dimension energy states system (n = 1, 2, …, ∞), m_{2n-sys} = mass energy in even 2n light dimension energy states systems, c_n^{2n} = even 2n light dimension energy states systems speed in power 2n, c_{2n-sys} = even 2n lights dimension energy states systems speed, v_{2n-sys} = velocity energy in even 2n lights dimension energy states systems speed, n = the light dimension energy state system (n = 1, 2, …, ∞). If $v_{2n-sys} \ll c_{2n-sys}$ in seeking value call super relativity energy state in even 2n lights dimension energy systems state like relativity $E_{2n-sys} = m_{2n-sys} c_n^{2n}$ straight follow from (16) replace k by k_n, $v = v_n$, c = c_n get the equation

$$k_n = \frac{1}{\sqrt{1-\frac{v_n^2}{c_n^2}}} \tag{26}$$

when k_n is the perturbation ether energy state system in n dimension energy states systems (n = 1,2,…,∞).

From the knowledge about the ether as deliver a speech come to before that in absolute system will show system ether condition as follows from (26) lead c^n multiply by through (don't forget that value c^n this the condition c^n in n dimension ether energy states systems) will get the equation

$$c^n k_n = \frac{c^n}{\sqrt{1-\frac{v_n^2}{c_n^2}}} \tag{27}$$

Replace c^n by c_{3n-sys}^n, v_n by v_{3n-sys}, c_n by c_{3n-sys} get,

$$c_{3n-sys}^n k_n = \frac{c_{3n-sys}^n}{\sqrt{1-\frac{v_{3n-sys}^2}{c_{3n-sys}^2}}} \tag{28}$$

when c_{3n-sys}^n = odd 3n light dimension energy states systems speed in power n, n = the light dimension energy state system (1, 2,…, ∞), v_{3n-sys} = velocity energy in odd 3n lights dimension energy states, c_{3n-sys} = odd 3n lights dimension energy states systems speed which from (28) rewrite equation,

$$\frac{k_n}{1/c_{3n-sys}^n} = \frac{1}{\frac{1}{c_{3n-sys}^n}\sqrt{1-\frac{v_{3n-sys}^2}{c_{3n-sys}^2}}} \tag{29}$$

give $\frac{k_n}{1/c^{3n-sys}}$ write replace with $k_{3n-ether}$ will get new equation be

$$k_{3n-ether} = \frac{1}{\frac{1}{c_{3n-sys}^n}\sqrt{1-\frac{v_{3n-sys}^2}{c_{3n-sys}^2}}} \tag{30}$$

which $k_{3n-ether}$ call that "the constant of the behaviour condition light ether odd 3n light dimension energy states system" from (2) lead value, multiply by through the equation

$$k_{3n-ether} E_{2n-sys} = k_{3n-ether} m_{2n-sys} c_n^{2n} \tag{31}$$

from (26) replace $k_{3n-ether}E_{2n-sys}$ this with the symbol E_{3n-sys} (see below don't forget that value this the energy that have behaviour condition odd 3n light dimension energy states system) get,

$$E_{3n-sys} = k_{3n-ether}m_{2n-sys}c_n^{2n} \tag{32}$$

$$E_{3n-sys} = \frac{m_{2n-sys}c_n^{2n}}{\frac{1}{c_{3n-sys}^n}\sqrt{1-\frac{v_{3n-sys}^2}{c_{3n-sys}^2}}} \tag{33}$$

$$E_{3n-sys} = \frac{m_{2n-sys}c_n^{2n}c_{3n-sys}^n}{\sqrt{1-\frac{v_{3n-sys}^2}{c_{3n-sys}^2}}} \tag{34}$$

If $v_{3n-sys} << c_{3n-sys}$ in seeking value call the odd 3n light dimension energy state systems in super relative theory (there be ether energy condition stays with) will get equation

$$E_{3n-sys} = m_{2n-sys}c_n^{2n}c_{3n-sys}^n \tag{35}$$

from (35) if $c_{3n-sys}^n = \lambda_{effect-3n}c_n^n$ if $\lambda_{effect-3n}$ be the effect of odd 3n light dimension energy state systems it get the equation

$$E_{3n-sys} = \lambda_{effect-3n}m_{2n-sys}c_n^{2n}c_n^n \tag{36}$$

you get

$$E_{3n-sys} = \lambda_{effect-3n}m_{2n-sys}c_n^{3n} \tag{37}$$

replace $\lambda_{effect-3n}m_{2n-sys} = m_{3n-sys}$,the equation

$$E_{3n-sys} = m_{3n-sys}c_n^{3n} \tag{38}$$

which is the super nature relativity energy in odd 3n light dimension energy state systems (The meaning of the equation is presented the odd 3n light dimension energy states systems like relativity)

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The Compton Effect on Open High Dimensions of Light Energy State Systems

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Abstract: *The purpose of this research is to study the energy of universal natural systems. It was developed from Einstein's energy equation. We proposed new ideas called even 2n and odd $3n_j$ light dimension energy state systems using Jiradeach's postulates. light dimensions were developed from Einstein's Theory of Special Relativity. We applied these new ideas to the Compton effect in open high dimensions and implemented Jiradeach's quantum hypothesis for 2n photon, ephoton, and $3n_j$ ephoton particles. In all cases, the equations had wavelengths called the Compton wavelength of the electron in even 2n, super relative energy, and odd $3n_j$ light dimension energy state systems. This relationship connects the initial and final wavelengths the scattering angle, which confirms Compton's experimental observation in high dimensions that the wavelength shift depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident 2n photons, ephotons, and $3n_j$ ephotons. The results demonstrate that 2n photons, ephotons, and $3n_j$ ephotons in high dimensions confirming that photons behave similar to electrons in materials. In the future, these findings may be applicable to the innovation called the "time machine."*

Keywords: *Compton wavelength of the electron in even 2n light dimension energy state systems, even 2n light dimension energy state systems, Jiradeach's postulates, Jiradeach's quantum hypothesis in high dimensions, odd $3n_j$ light dimension energy state systems*

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I. Introduction

Rationale and motivation

Humans use language as a tool for explaining, thinking, and learning[1,2,3,4]. Communication consists of both tangible and intangible factors. The use of language is an undeniably important tool for communication. Humans use language to explain natural phenomena[5,6,7]. Theoretical physics has continually progressed. Theoretical physics and the theory of quantum mechanic[8,9,10,11,12] led to the theories of special relativity[13,14,15] and general relativity. These two theories[16,17,18,19] effect the understanding of natural systems and have been developed by scientists who played important roles in physics research[20,21,22,23]. Noted scientists include Albert Einstein (1879-1955), Sir Isaac Newton (1643-1727), and James Clerk Maxwell (1831-1879).

Albert Einstein explained natural systems using physics. In Einstein's theory of relativity[24,25,26], energy is described using the equation[27,28,29,30],

$$E = mc^2, \tag{1}$$

where E = the relative energy of a system, m = the mass of the system ($m_p = 1.672621 \times 10^{-27}$ kg), and c = the speed of light ($c = 299{,}792{,}458$ m/s)[31].

The nature of light consists of two ideas:

1) Light is a wave similar to sound (Christiaan Huygens, 1678)[32,33]
2) Light consists of particles (per Newton, it does not bend around obstacles)[34,35,36,37]

These ideas explained the reflection and refraction of light.

Huygens suggested that light waves propagate in a medium called "luminiferous ether"[38,39,40], which is analogous to soundwaves traveling in air.

Thomas Young (1860) and Augustine Fresnel (1816) confirmed these theories[41,42].

a) Interference
b) Polarization $\Rightarrow$ transversal wave

After considerable research, Maxwell (1864) developed the theory of electromagnetism[43,44,45]. He proposed that light was electromagnetic (EM) radiation and there was only one ethereal medium for all EM phenomena[46,47,48]. Electromagnetic waves (EM waves) are created as the result of vibrations between an electric field and a magnetic field. EM waves are composed of oscillating magnetic and electric fields. Electromagnetic waves form when an electric field comes into contact with a magnetic field. Hence, they are known as "electromagnetic" waves. The electric and magnetic fields of an electromagnetic wave are perpendicular (at right angles) to each other. They are also perpendicular to the direction of the EM wave.

Einstein's postulates

Einstein developed an axiomatic theory called the Theory of Special Relativity (1905). It specifies the properties of space and time.

$\Rightarrow$ Relativity principle concept based on the Lorentz transformation (1899, 1904).

Hendrik Lorentz was the first one to realize that Maxwell's equations are invariant under this transformation.

In 1905, Henri Poincare developed the transformation of the properties of a mathematical group and named it after Lorentz.

Einstein's postulates[49,50,51]

(E1) All laws of physics are the same in every inertial frame of reference.

(E2) The speed of light is independent of the motion of its source.

This paper explains Einstein's relative energy equation that was discussed and reviewed Eq. (1) and led to the discovery of the super nature relativity energy in high dimensions of light energy state systems.

Light added in relative theory field

As previously noted, the addition of the algebraic energy equation to natural systems that Einstein presented had errors. This was applied to the unified field theory[52,53,54,55,56,57,58], which Einstein attempted to add the base power in all natural systems that merged with the same rule[59,60,61,62,63]. Eq. (1) explained that energy cannot be added to a system. The energy totals up like relatively not the energy totals up in nature system like absolute. Recently, the CERN Institute in the US conducted an experiment on Einstein's unified field test theory[64,65,66,67] because the overall energy image in natural systems results in errors, and the pillar of physics theory development at present is unable to seek all of the basis particles[68,69,70,71,72]. The origin of all mass in the universe, which developed as a hit-and-miss idea from Einstein's theory of relativity is the "super natural relative theory." The way we present the idea of energy nature system like absolute in nature system generally of all universe mass. The philosophy of the idea is profoundly from the Buddhism and every religion that has idea conform astonishingly in the answer of all nature universal system throughout in algebraic equation one system (by energy system in all nature system universe theology). It is presented in the following algebraic equation as follows:

$$E = mc^3, \tag{2}$$

where E = the energy of a system, m = the mass of the system, and c = the speed of light.

Eq. (2) relates to philosophy education from the ideas of Buddhadasa Bhikkhu (1906-1993)[73,74,75,76], who developed the jigsaw puzzle theory of relativity. The sources of the idea are as follows:

1. Buddha was told that the dharma had existed before he was born. but Buddha had a revelation on the original theory of natural systems. Buddha believed that the universe is the same in the past, present, and future. The enlightenment of Buddhism is called Nirvana[77,78,79,80,81].
2. Laozi, Taoism savant, was told that there were things that had existed before the world. They were neither materialistic nor spiritual and were called Tao[82,83,84,85,86,87].
3. In Hinduism, there is a belief in Atman, the spiritual life principle of the universe, which is regarded as inherent in the real self of an individual[88,89,90,91,92,93,94].
4. Christianity and Islam both involve belief in God[95,96,97,98,99,100].
5. Early physics postulated the existence of ether energy state systems. It existed before theology was established. It included things that could not be measured or physically changed, but there was a transfer of energy in every space and time in nature[101,102,103,104,105,106]. (In this paper, ether transfer is the light energy in each state system).

The previously mentioned factors can be applied to theoretical physics. In Buddhism, there is an enlightenment called Nirvana. In science, it is called the ether, while Christianity and Islam believe in God. Ataman is a belief in Hinduism, in Taoism, of the Tao. These beliefs provide insight into the purpose of religion and physics, which ultimately have a similar meaning.

Nirvana energy = Tao energy = Atman energy = God energy = Ether energy

These concepts can be considered in the theoretical physics jigsaw puzzle development theory and are part of Einstein's relative energy equation because Eq. (2) included ether energy (the ether energy can transfer energy by light energy in each state system). Eq. (2) presents a new idea including ether energy, and its proof can be found in the Appendix.

Even 2n light dimension energy state systems and odd $3n_j$ light dimension energy state systems

1. Even $2n$ light dimension energy state systems are the state of dual light dimension energy state systems in $2n$ light dimension energy state systems ($n = 1, 2, \ldots, \infty$).
2. Odd $3n_j$ light dimension energy state systems are the state of odd light dimension energy state systems in $3n$ light dimension energy state systems (if $n = 1, 3, 5, \ldots, 2j-1., j \geq 1$).

Applying and discovering the new energy formula

1. The even $2n$ light dimension energy state systems equation is demonstrated as follows:

$$E_{2n-sys} = m_{2n-sys} c_n^{2n} \text{ if } n = 1, 2, \ldots, \infty, \quad (3)$$

where E_{2n-sys} = the even $2n$ light dimension energy state systems in the theory of relativity frames

n = the light dimension energy state system ($n = 1, 2, \ldots, \infty$)

m_{2n-sys} = the mass energy in the even $2n$ light dimension energy state systems

c_n^{2n} = the even $2n$ light dimension energy state systems speed in power $2n$

2. The odd $3n_j$ light dimension energy state systems

Researchers presented the theory that developed into the new idea from Einstein's theory of relativity as

$$E_{3n_j-sys} = m_{3n_j-sys} c_{n_j}^{3n_j} \text{ if } n_j = 1, 3, 5, \ldots, 2j-1, \quad (4)$$

where E_{3n_j-sys} = the odd $3n_j$ light dimension energy state systems in super relative theory

n_j = the light dimension energy state systems ($n_j = 1, 3, 5, \ldots, 2j-1, j \geq 1$)

m_{3n_j-sys} = the mass energy of the odd $3n_j$ light dimension energy state systems

$c_{n_j}^{3n_j}$ = the speed energy of the odd $3n_j$ light dimension energy state systems in power $3n_j$

Eq. (4) emerged from the discovery of the new idea of basic quantum field structures in the smallest particle energy state systems. We assumed that the mass smallest light particle energy systems had stress perturbation energy state system[107,108,109,110,111]. There were relaxed point energy state systems[112,113,114,115,116] from a dual system to another energy state system[117,118,119,120]. It was the ether point energy state system[121,122] and connected dual-energy state systems[123,124,125,126] by light ether point energy state systems. These systems were restructured by equilateral triangle-based structural symmetry energy state systems[127,128,129,130]. The idea addressed the equilateral triangle-based structural symmetry particle energy state systems that could renormalize three points of the basic structure in relativity energy state systems[131,132,133,134,135], as well as odd $3n$ light dimension energy state systems. By each structure of equilateral triangle-based structures relative symmetry particles in energy state systems consecutive energy (hint: the new idea in string theory[136,137,138,139]).

II. Methods

1. We illustrated the idea of Jiradeach's postulates that the light dimension contains more than one dimension of light.
2. We applied Jiradeach's postulates to Jiradeach's quantum hypothesis in advanced high-dimension quantum fields.
3. We applied Jiradeach's quantum hypothesis in the Compton effect in high-dimension light energy state systems.

III. Result

1. We believe that Jiradeach's postulates present more than one dimension of light.

Jiradeach's postulates

(J1) All of the laws of physics are the same in every inertial frame of reference. They are dependent on each dimension of light energy state systems.

(J2) The speed of light is independent of the motion of its source from each and every dimension of light energy.

2. We applied Jiradeach's postulates to Jiradeach's quantum hypothesis in advanced high-dimension quantum fields.

Jiradeach's quantum hypothesis in high dimensions

Inspired by Planck's quantization of electromagnetic radiation[140,141,142], in 1905, Einstein provided a theoretical explanation for the dependence of photoelectric emissions[143,144,145] on the frequency of the incident radiation. He assumed that light is made of corpuscles that carry an energy called photons[146,147,148,149]. From this explanation, Einstein elucidated a new idea of photoelectric emission on the frequency of the incident in high dimensions of super relative energy.

In even $2n$ light dimension energy state systems, the elastic scattering called the $2n$ photon from a free electron is composed of corpuscles each carrying an energy $E_{2n} = h^n v^n$. A beam of light of frequency v is incident on a metal surface. Each 2n photon transmits all of its energy $h^n v^n$ to an electron near the surface. In this process, the 2n photon is entirely absorbed by the electron. Thus, the electron will absorb energy *only* in quanta of energy $h^n v^n$, irrespective of the intensity of the incident radiation.

In super relative energy, the elastic scattering called an ephoton (e is the abbreviation of ether) is from a free electron that is made of corpuscles that carry an energy $E = hvc$. When a beam of light of frequency v is incident on a metal surface, each ephoton transmits all of its energy hvc to an electron near the surface. In the process, the ephoton is entirely absorbed by the electron. Thus, the electron will absorb energy *only* in quanta of energy hvc, irrespective of the intensity of the incident radiation.

In odd $3n_j$ light dimension energy state systems, which can be illustrated by the elastic scattering called $3n_j$, an ephoton from a free electron is made of corpuscles each carrying an energy $E_{3n_j} = h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$. When a beam of light of frequency v is incident on a metal surface, each $3n_j$ ephoton transmits all of its energy $h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$ to an electron near the surface. In the process, the $3n_j$ ephoton is entirely absorbed by the electron. Thus, the electron will absorb energy only in quanta of energy $h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$, irrespective of the intensity of the incident radiation.

Jiradeach's quantum hypothesis is the dependence of photoelectric emissions on the frequency of the incident radiation in high light dimension energy state systems in even $2n$ light dimension energy state systems, in super relative energy, and in odd $3n_j$ light dimension energy state systems called $2n$ photons, ephotons, and $3n_j$ ephotons.

3. We applied Jiradeach's quantum hypothesis in Compton effect

3.1. We can explain the Compton effect in even $2n$ light dimension energy state systems more effectively than the Compton effect using the old theorem. It variously covers energy that is explained by the Compton effect in high-dimension light energy state systems.

Compton effect in even 2n light dimension energy state systems

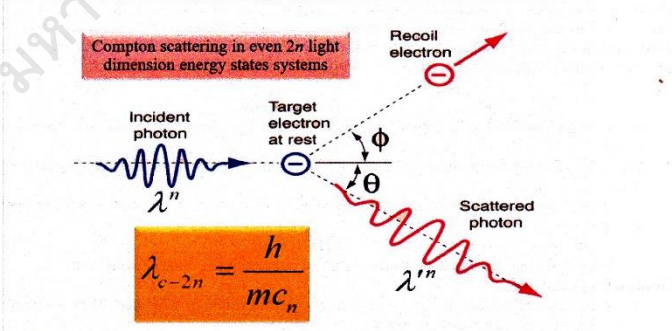

Fig. 1 Compton scattering in even $2n$ light dimension energy states systems

This scattering process in even $2n$ light dimension energy state systems is illustrated by the elastic scattering of a $2n$ photon from a free electron (Fig. 1). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident $2n$ photon of energy in even $2n$ light dimension energy state systems $E_{2n} = h^n v^n$ and the momentum in even $2n$ light dimension energy state systems $p_{2n} = \frac{h^n v^n}{c_n^n}$, the $2n$ photon collides with an electron that is initially at rest, If the $2n$ photon scatters with a momentum in even $2n$ light dimension energy state systems $\vec{p}'_{e-2n}$ at an angle θ while the electron recoils with a momentum in even $2n$ light dimension energy state systems $\vec{p}_{e-2n}$, the conservation of linear momentum yields (if $n = 1, 2, ..., \infty$),

$$\vec{p}_{2n} = \vec{p}_{e-2n} + \vec{p}'_{e-2n}, \tag{5}$$

which leads to

$$\vec{p}^{\,2}_{e-2n} = (\vec{p}_{2n} - \vec{p}'_{e-2n})^2 = (\vec{p}_{2n})^2 - 2\vec{p}_{2n}\vec{p}'_{e-2n} + (\vec{p}'_{e-2n})^2, \tag{6}$$

$$\vec{p}^{\,2}_{2n} = \vec{p}_{2n}\vec{p}_{2n} = p^2_{2n}$$

$$\vec{p}^{\,2}_{e-2n} = \vec{p}_{e-2n}\vec{p}_{e-2n} = p^2_{e-2n}$$

$$\vec{p}_{2n}\vec{p}'_{e-2n} = p_{2n}p'_{e-2n}\cos\theta$$

$$p_{2n} = \frac{h^n v_n^n}{c_n^n} \qquad p^2{}_{2n} = \frac{h^{2n} v^{2n}}{c_n^{2n}}$$

$$p'_{e-2n} = \frac{h^n v_n'^n}{c_n^n} \qquad p'^2_{2n} = \frac{h^{2n} v_n'^{2n}}{c_n^{2n}}$$

$$\vec{p}^{\,2}_{e-2n} = p^2_{2n} - 2p_{2n}p'_{e-2n}\cos\theta + p^2_{e-2n}, \tag{7}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n} v_n^{2n}}{c_n^{2n}} - 2\left(\frac{h^n v_n^n}{c_n^n}\right)\left(\frac{h^n v_n'^n}{c_n^n}\right)\cos\theta + \frac{h^{2n} v_n'^{2n}}{c_n^{2n}}, \tag{8}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n} v_n^{2n}}{c_n^{2n}} - 2\frac{h^{2n} v_n^n v_n'^n}{c_n^{2n}}\cos\theta + \frac{h^{2n} v_n'^{2n}}{c_n^{2n}}, \tag{9}$$

$$\vec{p}^{\,2}_{e-2n} = \frac{h^{2n}}{c_n^{2n}}(v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta). \tag{10}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{2n-sys(0)} = m_{2n-sys}c_n^{2n}, \tag{11}$$

$$E_{e-2n-sys} = \sqrt{\vec{p}^{\,2}_{e-2n}c_n^{2n} + m^2_{2n-sys}c_n^{4n}}, \tag{12}$$

$$E_{e-2n-sys} = \sqrt{\frac{h^{2n}}{c_n^{2n}}(v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta)c_n^{2n} + \frac{h^{2n}}{h^{2n}}m^2_{2n-sys(0)}c_n^{4n}}, \tag{13}$$

$$E_{e-2n-sys} = \sqrt{h^{2n}\left(v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m^2_{2n-sys(0)}c_n^{4n}}{h^{2n}}\right)}, \tag{14}$$

$$E_{e-2n-sys} = h^n\sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m^2_{2n-sys(0)}c_n^{4n}}{h^{2n}}}. \tag{15}$$

The derivation of this relationship using Eq. (10) when the energy of the incident and scattered $2n$ photons in even $2n$ light dimension energy state systems is given by $E_{2n} = h^n v_n^n$ and $E'_{2n} = h^n v_n'^n$, respectively. The conservation of energy dictates that

$$E_{2n} + E_{2n-sys(0)} = E'_{2n} + E_{e-2n-sys}, \tag{16}$$

or

$$h^n v_n^n + m_{2n-sys(0)}c_n^{2n} = h^n v_n'^n + h^n\sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{17}$$

$$v_n^n + \frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = v_n'^n + \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{18}$$

which in turn leads to

$$(v_n^n - v_n'^n) + \frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = \sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}, \tag{19}$$

squaring both sides of Eq. (19) and simplifying,

$$\left((v_n^n - v_n'^n) + \frac{m_{2n-sys(0)}c_n^{2n}}{h^n}\right)^2 = \left(\sqrt{v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}}\right)^2, \tag{20}$$

$$(v_n^n - v_n'^n)^2 + 2(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}} =$$

$$v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}, \tag{21}$$

$$v_n^{2n} - 2v_n^n v_n'^n + v_n'^{2n} + 2(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}} =$$

$$v_n^{2n} + v_n'^{2n} - 2v_n^n v_n'^n\cos\theta + \frac{m_{2n-sys(0)}^2 c_n^{4n}}{h^{2n}}, \tag{22}$$

$$-v_n^n v_n'^n + (v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = -v_n^n v_n'^n\cos\theta, \tag{23}$$

$$(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = v_n^n v_n'^n - v_n^n v_n'^n\cos\theta, \tag{24}$$

$$(v_n^n - v_n'^n)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = v_n^n v_n'^n(1-\cos\theta), \tag{25}$$

$$\frac{(v_n^n - v_n'^n)}{v_n^n v_n'^n}\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = (1-\cos\theta), \tag{26}$$

$$\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right)\frac{m_{2n-sys(0)}c_n^{2n}}{h^n} = (1-\cos\theta), \tag{27}$$

we end up with

$$\boxed{\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right) = \frac{h^n}{m_{2n-sys(0)}c_n^{2n}}(1-\cos\theta) = \frac{2h^n}{m_{2n-sys(0)}c_n^{2n}}\sin^2\left(\frac{\theta}{2}\right)} \tag{28}$$

and the wavelength shift is given by

$$c_n^n\left(\frac{1}{v_n'^n} - \frac{1}{v_n^n}\right) = \frac{c_n^n h^n}{m_{2n-sys(0)}c_n^{2n}}(1-\cos\theta), \tag{29}$$

$$\frac{c_n^n}{v_n'^n} - \frac{c_n^n}{v_n^n} = \frac{h^n}{m_{2n-sys(0)}c_n^n}(1-\cos\theta), \tag{30}$$

$$(\Delta\lambda)^n = \lambda'^n - \lambda^n = \frac{h^n}{m_{2n-sys(0)}c^{2n}}(1-\cos\theta) = 2\lambda^n_{C-2n}\sin^2(\frac{\theta}{2}) \tag{31}$$

$$\sin\frac{\theta}{2} = \sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2} = \frac{1-\cos\theta}{2}$$

$$\left(\sin\frac{\theta}{2}\right)^2 = \left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2} = 1-\cos\theta$$

$$\lambda^n_{C-2n} = \frac{h^n}{m_{2n-sys(0)}c^n_n}, \tag{32}$$

$$\lambda^n_{C-2n} = \frac{h^n}{m^n c^n_n}, (m_{2n-sys(0)} = m^n) \tag{33}$$

$$\lambda_{C-2n} = \frac{h}{mc_n} \tag{34}$$

where $\lambda_{C-2n} = \frac{h}{mc_n}$ is called the Compton wavelength of the electron in even $2n$ light dimension energy state systems. This relationship connects the initial and final wavelengths to the scattering angle, confirming Compton's experimental observation that the wavelength shift of X-rays depends only on the angle at which the wavelengths are scattered and not on the frequency (or wavelength) of the incident $2n$ photons.

In summary, the Compton effect in even $2n$ light dimension energy state systems confirms that $2n$ photons behave similar to particles and they collide with electrons similar to material particles.

3.2. We can explain the Compton effect in super relative energy more effectively than the Compton effect using the old theorem. It variously covers energy that is explained by the Compton effect in high-dimension light energy state systems (including ether energy).

Compton effect in super relative energy

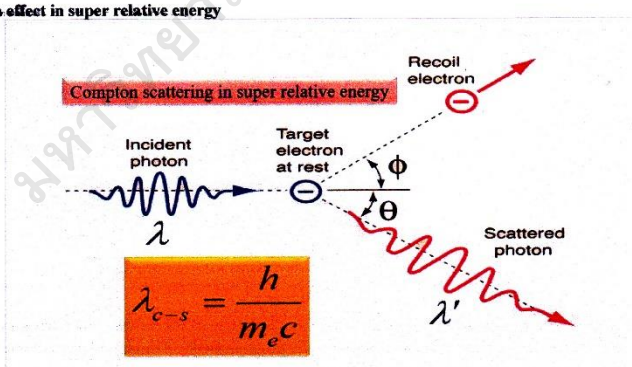

Fig. 2 Compton scattering in super relative energy

This scattering process in super relative energy can be illustrated by the elastic scattering of an ephoton from a free electron (Fig. 2). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident ephoton of energy in super relative energy $E = h\nu c$ and the momentum in super relative energy $p = \frac{h\nu}{c}$, the ephoton collides with an electron that is initially at rest. If the ephoton scatters with a momentum in super relative energy $\vec{p}'$ at an angle θ while the electron recoils with a momentum in super relative energy $\vec{p}_e$, the conservation of linear momentum yields

$$\vec{p} = \vec{p}_e + \vec{p}', \tag{35}$$

which leads to

$$\vec{p}_e = \vec{p} - \vec{p}', \tag{36}$$

$$\vec{p}_e^{\,2} = (\vec{p} - \vec{p}')^2 = (\vec{p})^2 - 2\vec{p}\vec{p}' + (\vec{p}')^2, \tag{37}$$

$\vec{p}^{\,2} = \vec{p}\vec{p} = p^2$	$p = \frac{h\nu}{c}$	$p^2 = \frac{h^2\nu^2}{c^2}$
$\vec{p}'^{\,2} = \vec{p}'\vec{p}' = p'^2$	$p' = \frac{h\nu'}{c}$	$p'^2 = \frac{h^2\nu'^2}{c^2}$
$\vec{p}\vec{p}' = pp'\cos\theta$		

$$\vec{p}_e^{\,2} = p^2 - 2pp'\cos\theta + p'^2, \tag{38}$$

$$\vec{p}_e^{\,2} = \frac{h^2\nu^2}{c^2} - 2\left(\frac{h\nu}{c}\right)\left(\frac{h\nu'}{c}\right)\cos\theta + \frac{h^2\nu'^2}{c^2}, \tag{39}$$

$$\vec{p}_e^{\,2} = \frac{h^2\nu^2}{c^2} - 2\frac{h^2\nu\nu'}{c^2}\cos\theta + \frac{h^2\nu'^2}{c^2}, \tag{40}$$

$$\vec{p}_e^{\,2} = \frac{h^2}{c^2}(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta). \tag{41}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{s(0)} = m_e c^3, \tag{42}$$

$$E_e = \sqrt{\vec{p}_e^{\,2}c^4 + m_e^2 c^6}, \tag{43}$$

$$E_e = \sqrt{\frac{h^2}{c^2}(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta)c^4 + \frac{h^2}{h^2}m_e^2 c^6}, \tag{44}$$

$$E_e = \sqrt{h^2c^2\left(\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2c^4}{h^2}\right)}, \tag{45}$$

$$E_e = hc\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2c^4}{h^2}}. \tag{46}$$

The derivation of this relationship using Eq. (41) when the energy of the incident and scattered ephotons in super relative energy is given by $E = h\nu c$ and $E' = h\nu' c$, respectively. The conservation of energy dictates that

$$E + E_{s(0)} = E' + E_e, \tag{47}$$

or

$$h\nu c + m_e c^3 = h\nu' c + hc\sqrt{\nu^2 + \nu'^2 - 2\nu\nu'\cos\theta + \frac{m_e^2c^4}{h^2}}, \tag{48}$$

$$v+\frac{m_e c^2}{h}=v'+\sqrt{v^2+v'^2-2vv'\cos\theta+\frac{m_e^2c^4}{h^2}}, \tag{49}$$

which in turn leads to

$$(v-v')+\frac{m_e c^2}{h}=\sqrt{v^2+v'^2-2vv'\cos\theta+\frac{m_e^2c^4}{h^2}}, \tag{50}$$

squaring both sides of Eq. (50) and simplifying,

$$\left((v-v')+\frac{m_e c^2}{h}\right)^2=\left(\sqrt{v^2+v'^2-2vv'\cos\theta+\frac{m_e^2c^4}{h^2}}\right)^2, \tag{51}$$

$$(v-v')^2+2(v-v')\frac{m_e c^2}{h}+\frac{m_e^2c^4}{h^2}=v^2+v'^2-2vv'\cos\theta+\frac{m_e^2c^4}{h^2}, \tag{52}$$

$$v^2-2vv'+v'^2+2(v-v')\frac{m_e c^2}{h}+\frac{m_e^2c^4}{h^2}=v^2+v'^2-2vv'\cos\theta+\frac{m_e^2c^4}{h^2}, \tag{53}$$

$$-vv'+(v-v')\frac{m_e c^2}{h}=-vv'\cos\theta, \tag{54}$$

$$(v-v')\frac{m_e c^2}{h}=vv'-vv'\cos\theta, \tag{55}$$

$$(v-v')\frac{m_e c^2}{h}=vv'(1-\cos\theta), \tag{56}$$

$$\frac{(v-v')}{vv'}\frac{m_e c^2}{h}=(1-\cos\theta), \tag{57}$$

$$\sin\frac{\theta}{2}=\sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2}=\frac{1-\cos\theta}{2}$$

$$\left(\sin\frac{\theta}{2}\right)^2=\left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2}=1-\cos\theta$$

we end up with

$$\left(\frac{1}{v'}-\frac{1}{v}\right)=\frac{h}{m_e c^2}(1-\cos\theta)=\frac{2h}{m_e c^2}\sin^2\left(\frac{\theta}{2}\right) \tag{58}$$

and the wavelength shift is given by

$$c\left(\frac{1}{v'}-\frac{1}{v}\right)=\frac{ch}{m_e c^2}(1-\cos\theta), \tag{59}$$

$$\frac{c}{v'}-\frac{c}{v}=\frac{h}{m_e c}(1-\cos\theta), \tag{60}$$

$$\Delta\lambda = \lambda' - \lambda = \frac{h}{m_e c}(1-\cos\theta) = 2\lambda_{C-S}\sin^2(\frac{\theta}{2}), \tag{61}$$

where $\lambda_{C-S} = \frac{h}{m_e c}$ is called the Compton wavelength of the electron in super relative energy. This relationship connects the initial and final wavelengths to the scattering angle. It confirms Compton's experimental observation: the wavelength shift of the X-rays depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident ephotons.

In summary, the Compton effect in super relative energy effect confirms that ephotons behave similar to particles and they collide with electrons similar to material particles.

3.3. We can explain the Compton effect in odd $3n_j$ light dimension energy state systems more effectively than using the Compton effect in the old theorem. It variously covers energy explained by the Compton effect in high dimension of light energy state systems (including advanced ether energy).

Compton effect in odd $3n_j$ light dimension energy state systems

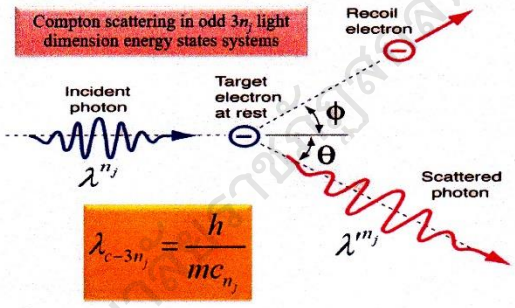

Fig. 3 Compton scattering in odd $3n_j$ light dimension energy states systems

This scattering process in odd $3n_j$ light dimension energy state systems can be illustrated by the elastic scattering of a $3n_j$ ephoton from a free electron (Fig. 3). The laws of elastic collisions can notably invoke the conservation of energy and momentum.

Considering the incident $3n_j$ ephoton of energy in odd $3n_j$ light dimension energy state systems $E_{3n_j} = h^{n_j} v_{n_j}^{n_j} c_{n_j}^{n_j}$ and the momentum in odd $3n_j$ light dimension energy state systems $p_{3n_j} = \frac{h^{n_j} v_n^{n_j}}{c_{n_j}^{n_j}}$, the $3n_j$ ephoton collides with an electron that is initially at rest. If the $3n_j$ ephoton scatters with a momentum in odd $3n_j$ light dimension energy state systems $\vec{p}'_{e-3n_j}$ at an angle θ while the electron recoils with a momentum in odd $3n_j$ light dimension energy state systems $\vec{p}_{e-3n_j}$, the conservation of linear momentum yields (if $n = 1, 3, 5, \ldots, 2j-1., j \geq 1$)

$$\vec{p}_{3n_j} = \vec{p}_{e-3n_j} + \vec{p}'_{e-3n_j}, \tag{62}$$

which leads to

$$\vec{p}_{e-3n_j} = \vec{p}_{3n_j} - \vec{p}'_{e-3n_j}, \tag{63}$$

$$\vec{p}^2_{e-3n_j} = (\vec{p}_{3n_j} - \vec{p}'_{e-3n_j})^2 = (\vec{p}_{3n_j})^2 - 2\vec{p}_{3n_j}\vec{p}'_{e-3n_j} + (\vec{p}'_{e-3n_j})^2, \tag{64}$$

$$\vec{p}_{3n_j}^2 = \vec{p}_{3n_j}\vec{p}_{2n_j} = p_{3n_j}^2$$

$$\vec{p}_{e-3n_j}^2 = \vec{p}_{e-3n_j}\vec{p}_{e-3n_j} = p_{e-3n_j}^2$$

$$\vec{p}_{3n_j}\vec{p}'_{e-3n_j} = p_{3n_j}p'_{e-3n_j}\cos\theta$$

$$p_{3n_j} = \frac{h^{n_j}v_{n_j}^{n_j}}{c_{n_j}^{n_j}} \qquad p_{3n_j}^2 = \frac{h^{2n_j}v_{n_j}^{2n_j}}{c_{n_j}^{2n_j}}$$

$$p'_{e-3n_j} = \frac{h^{n_j}v'^{n_j}_{n_j}}{c_{n_j}^{n_j}} \qquad p'^2_{3n_j} = \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c_{n_j}^{2n_j}}$$

$$\vec{p}_{e-3n_j}^2 = p_{3n_j}^2 - 2p_{3n_j}p'_{e-3n_j}\cos\theta + p_{e-3n_j}^2, \tag{65}$$

$$\vec{p}_{e-3n_j}^2 = \frac{h^{2n_j}v_{n_j}^{2n_j}}{c_{n_j}^{2n_j}} - 2\left(\frac{h^{n_j}v_{n_j}^{n_j}}{c_{n_j}^{n_j}}\right)\left(\frac{h^{n_j}v'^{n_j}_{n_j}}{c_{n_j}^{n_j}}\right)\cos\theta + \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c_{n_j}^{2n_j}}, \tag{66}$$

$$\vec{p}_{e-3n_j}^2 = \frac{h^{2n_j}v_{n_j}^{2n_j}}{c_{n_j}^{2n_j}} - 2\frac{h^{2n_j}v_{n_j}^{n_j}v'^{n_j}_{n_j}}{c_{n_j}^{2n_j}}\cos\theta + \frac{h^{2n_j}v'^{2n_j}_{n_j}}{c_{n_j}^{2n_j}}, \tag{67}$$

$$\vec{p}_{e-3n_j}^2 = \frac{h^{2n_j}}{c_{n_j}^{2n_j}}(v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta), \tag{68}$$

Regarding energy conservation, the energy of the electron before and after the collision is respectively given by

$$E_{3n_j-sys(0)} = m_{3n_j-sys}c_{n_j}^{3n_j}, \tag{69}$$

$$E_{e-3n_j-sys} = \sqrt{\vec{p}_{e-3n_j}^2 c_{n_j}^{4n_j} + m_{3n_j-sys}^2 c_{n_j}^{6n_j}}, \tag{70}$$

$$E_{e-3n_j-sys} = \sqrt{\frac{h^{2n_j}}{c_{n_j}^{2n_j}}(v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta)c_{n_j}^{4n_j} + \frac{h^{2n_j}}{h^{2n_j}}m_{3n_j-sys}^2 c_{n_j}^{6n_j}}, \tag{71}$$

$$E_{e-3n_j-sys} = \sqrt{h^{2n_j}c_{n_j}^{2n_j}\left(v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m_{3n_j-sys}^2 c_{n_j}^{4n_j}}{h^{2n_j}}\right)}, \tag{72}$$

$$E_{e-3n_j-sys} = h^{n_j}c_{n_j}^{n_j}\sqrt{v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m_{3n_j-sys}^2 c_{n_j}^{4n_j}}{h^{2n_j}}}. \tag{73}$$

The derivation of this relationship using Eq. (68) when the energy of the incident and scattered $3n_j$ ephotons in odd $3n_j$ light dimension energy state systems is given by $E_{3n_j} = h^{n_j}v_{n_j}^{n_j}c_{n_j}^{n_j}$ and $E'_{3n_j} = h^{n_j}v'^{n_j}_{n_j}c_{n_j}^{n_j}$, respectively. The conservation of energy dictates that

$$E_{3n_j} + E_{3n_j-sys(0)} = E'_{3n_j} + E_{e-3n_j-sys}, \tag{74}$$

or

$$h^{n_j}v_{n_j}^{n_j}c_{n_j}^{n_j} + m_{3n_j-sys}c_{n_j}^{3n_j} = h^{n_j}v'^{n_j}_{n_j}c_{n_j}^{n_j} + h^{n_j}c_{n_j}^{n_j}\sqrt{v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m_{3n_j-sys}^2 c_{n_j}^{4n_j}}{h^{2n_j}}}, \tag{75}$$

$$v_{n_j}^{n_j} + \frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}} = v'^{n_j}_{n_j} + \sqrt{v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m_{3n_j-sys}^2 c_{n_j}^{4n_j}}{h^{2n_j}}}, \tag{76}$$

which in turn leads to

$$(v_{n_j}^{n_j} - v'^{n_j}_{n_j}) + \frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}} = \sqrt{v_{n_j}^{2n_j} + v'^{2n_j}_{n_j} - 2v_{n_j}^{n_j}v'^{n_j}_{n_j}\cos\theta + \frac{m_{3n_j-sys}^2 c_{n_j}^{4n_j}}{h^{2n_j}}}, \tag{77}$$

squaring both sides of Eq. (77) and simplifying,

$$(v_{n_j}^{n_j}-v_{n_j}'^{n_j})^2+2(v_{n_j}^{n_j}-v_{n_j}'^{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}=$$

$$v_{n_j}^{2n_j}+v_{n_j}'^{2n_j}-2v_{n_j}^{n_j}v_{n_j}'^{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}, \tag{78}$$

$$v_{n_j}^{2n_j}-2v_{n_j}^{n_j}v_{n_j}'^{n_j}+v_{n_j}'^{2n_j}+2(v_{n_j}^{n_j}-v_{n_j}'^{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}=$$

$$v_{n_j}^{2n_j}+v_{n_j}'^{2n_j}-2v_{n_j}^{n_j}v_{n_j}'^{n_j}\cos\theta+\frac{m_{3n_j-sys}^2c_{n_j}^{4n_j}}{h^{2n_j}}, \tag{79}$$

$$-v_{n_j}^{n_j}v_{n_j}'^{n_j}+(v_{n_j}^{n_j}-v_{n_j}'^{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=-v_{n_j}^{n_j}v_{n_j}'^{n_j}\cos\theta, \tag{80}$$

$$(v_{n_j}^{n_j}-v_{n_j}'^{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=v_{n_j}^{n_j}v_{n_j}^{n_j}-v_{n_j}^{n_j}v_{n_j}'^{n_j}\cos\theta, \tag{81}$$

$$(v_{n_j}^{n_j}-v_{n_j}'^{n_j})\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=v_{n_j}^{n_j}v_{n_j}'^{n_j}(1-\cos\theta), \tag{82}$$

$$\frac{(v_{n_j}^{n_j}-v_{n_j}'^{n_j})}{v_{n_j}^{n_j}v_{n_j}'^{n_j}}\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=(1-\cos\theta), \tag{83}$$

$$\left(\frac{1}{v_{n_j}'^{n_j}}-\frac{1}{v_{n_j}^{n_j}}\right)\frac{m_{3n_j-sys}c_{n_j}^{2n_j}}{h^{n_j}}=(1-\cos\theta), \tag{84}$$

we end up with

$$\boxed{\left(\frac{1}{v_{n_j}'^{n_j}}-\frac{1}{v_{n_j}^{n_j}}\right)=\frac{h^{n_j}}{m_{3n_j-sys}}(1-\cos\theta)=\frac{2h^{n_j}}{m_{3n_j-sys}}\sin^2(\frac{\theta}{2})}, \tag{85}$$

and the wavelength shift is given by

$$c_{n_j}^{n_j}\left(\frac{1}{v_{n_j}'^{n_j}}-\frac{1}{v_{n_j}^{n_j}}\right)=\frac{c_{n_j}^{n_j}h^{n_j}}{m_{3n_j-sys}c_{n_j}^{2n_j}}(1-\cos\theta), \tag{86}$$

$$\boxed{\begin{aligned}&\sin\frac{\theta}{2}=\sqrt{\frac{1-\cos\theta}{2}} \qquad \sin^2\frac{\theta}{2}=\frac{1-\cos\theta}{2}\\ &\left(\sin\frac{\theta}{2}\right)^2=\left(\sqrt{\frac{1-\cos\theta}{2}}\right)^2 \qquad 2\sin^2\frac{\theta}{2}=1-\cos\theta\end{aligned}}$$

$$\frac{c_{n_j}^{n_j}}{v_{n_j}'^{n_j}}-\frac{c_{n_j}^{n_j}}{v_{n_j}^{n_j}}=\frac{h^{n_j}}{m_{3n_j-sys}c_{n_j}^{n_j}}(1-\cos\theta), \tag{87}$$

$$\boxed{(\Delta\lambda)^{n_j}=\lambda'^{n_j}-\lambda^{n_j}=\frac{h^{n_j}}{m_{3n_j-sys}c_{n_j}^{n_j}}(1-\cos\theta)=2\lambda_{C-3n_j}^{n_j}\sin^2(\frac{\theta}{2})} \tag{88}$$

$$\lambda_{C-3n_j}^{n_j} = \frac{h^{n_j}}{m_{3n_j-sys} c_{n_j}^{n_j}}, \tag{89}$$

$$\lambda_{C-3n_j}^{n_j} = \frac{h^{n_j}}{m^{n_j} c_{n_j}^{n_j}}, (m_{3n_j-sys} = m^{n_j}) \tag{90}$$

$$\boxed{\lambda_{C-3n_j} = \frac{h}{mc_{n_j}},} \tag{91}$$

where $\lambda_{C-3n_j} = \frac{h}{mc_{n_j}}$ is called the Compton wavelength of the electron in odd $3n_j$ light dimension energy state systems that shows the relationship that connects the initial and final wavelengths to the scattering angle. It confirms Compton's experimental observation that the wavelength shift of X-rays depends only on the angle at which the wavelengths are scattered and not on the frequency (or wavelength) of the incident $3n_j$ ephotons.

In summary, the Compton effect in odd $3n_j$ light dimension energy state systems effect confirms that $3n_j$ ephotons behave similar to particles and they collide with electrons similar to material particles.

IV. Discussion

1. High-dimension light identifies the dimension of light in more than one dimension[150,151,152,153,154,155,156]
2. Jiradeach's postulate was variously applied in advanced quantum fields in high-dimension energy state systems[157,158,159,160,161].
3. High-dimension light demonstrates wave-particle duality; moreover and is consistent based on Einstein's research on the nature of light[162,163,164,165]

3.1. We proved the Compton effect in even $2n$ light dimension energy states, in super relative energy, and in odd $3n_j$ light dimension energy state systems by implementing Jiradeach's quantum hypothesis in various high-dimension energy state systems.

3.2. The equations (the Compton effect in even $2n$ light dimension energy state systems, in super relative energy, and in odd $3n_j$ light dimension energy state systems) were proved using the conservation of energy and momentum (principle of symmetry), which were consistent and symmetrical.

V. Conclusion

1. The purpose of this paper was to study the energy of natural systems. The energy of natural systems was developed from Einstein's energy equation. Researchers proposed the $2n$ and odd $3n_j$ light dimension energy state systems using Jiradeach's postulates.
2. Light dimensions were developed from Einstein's theory of relativity. We applied the Compton effect to high-dimension light energy state systems and implemented Jiradeach's quantum hypothesis in high-dimension light energy state systems using $2n$ photons, ephotons, and $3n_j$ ephotons in high-dimension Compton wavelengths.
3. In all cases, the process equations contained the Compton wavelength of electrons in even $2n$ light dimension energy state systems, in super relative energy, and in odd $3n_j$ light dimension energy state systems. This relationship connects the initial and final wavelengths to the scattering angle, confirming that Compton's experimental observation in high dimensions revealed that the wavelength shift depends only on the angle at which they are scattered and not on the frequency (or wavelength) of the incident $2n$ photons, ephotons, and $3n_j$ ephotons. The results showed $2n$ photons, ephotons, and $3n_j$ ephotons in high dimensions, confirming that photons behave similar to electrons in materials. We applied the super relative theory, which is the beginning of the transformation of matter into open space and time in high dimensions.
4. In all cases, the process equations used the principle of symmetry.
5. In the future, these findings may be applicable to the innovation called the "time machine."

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VI. Appendix

Appendix A

1. Proof of Eq. (3)

From

$$E = mc^2, \tag{A.1}$$

$$(E)^n = (mc^2)^n, \tag{A.2}$$

$$E^n = m^n c^{2n}, \tag{A.3}$$

$$E_{2n-sys} = m_{2n-sys} c_n^{2n}. \tag{A.4}$$

In (A.3), E^n is replaced with E_{2n-sys} in even $2n$ light dimension energy state systems in the theory of relativity (the meaning of the equation is presented the even $2n$ light dimension energy state systems in theory of relativity frames).

m^n is replaced with m_{2n-sys} in the even $2n$ light dimension energy y state systems in the theory of relativity (the equation demonstrates the even $2n$ light dimension energy state systems in theory of relativity frames).

c^{2n} is replaced with c_n^{2n} in even $2n$ light dimension energy state systems in the theory of relativity (the equation demonstrates the even $2n$ light dimension energy state systems in theory of relativity frames).

2. Proof of Eq. (4)

From

$$E = mc^3, \tag{A.5}$$

$$(E)^{n_j} = (mc^3)^{n_j}, \tag{A.6}$$

$$E^{n_j} = m^{n_j} c^{3n_j}, \tag{A.7}$$

$$E_{3n_j-sys} = m_{3n_j-sys} c_{n_j}^{3n_j}. \tag{A.8}$$

In (A.7), E^{n_j} is replaced with E_{3n_j-sys} in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of relativity frames).

m^{n_j} is replaced with m_{3n_j-sys} in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of relativity frames).

c^{3n_j} is replaced with $c_{n_j}^{3n_j}$ in the odd $3n_j$ light dimension energy state systems in the theory of relativity (the equation demonstrates the odd $3n_j$ light dimension energy state systems in theory of relativity frames).

Appendix B. Ether calculations

The equation of energy system will be generally similar to Einstein's theory as demonstrated in the following equation:

$$E = \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.1}$$

where E = the energy
m = the mass
c = the speed of light
v = the mass velocity

If v<< c is used to obtain the value of energy system in nature system, generally $E = mc^2$ will follow Eq. (1) as indicated in the following equation:

$$k = \frac{1}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.2}$$

where k = the perturbation of the ether energy
c = the speed of light
v = the mass velocity energy

from the knowledge of the ether as delivered speech before the absolute system will can show the perturbation system ether condition as follows from (B.2) lead c multiply by through (do not forget that value c this the condition c in ether system) will get the equation

$$ck = \frac{c}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.3}$$

which from (B.3) creates a new algebraic equation,

$$\frac{k}{1/c} = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.4}$$

$\frac{k}{1/c}$ replaced with k_e results in a new equation:

$$k_e = \frac{1}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.5}$$

where k_e is the constant of the behavioral light ether dimension energy state system from Eq. (1) multiplied by

$$k_e E = k_e mc^2, \tag{B.6}$$

From (B.6), replacing $k_e E$ with the symbol E_{e-sys} (keep in mind that value this the energy that have behavioral condition light ether dimension energy state system) as in the following equation:

$$E_{e-sys} = k_e mc^2, \tag{B.7}$$

$$E_{e-sys} = \frac{mc^2}{\frac{1}{c}\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.8}$$

$$E_{e-sys} = \frac{mc^3}{\sqrt{1-\frac{v^2}{c^2}}}, \tag{B.9}$$

If $v << c$ is used to obtain the value of energy system in nature system generally (the ether condition remains the same), the algebraic equation will be

$$E_{e-sys} = mc^3. \tag{B.10}$$

Appendix C. Explanation of odd 3n light dimension energy state systems in super relative theory

From $E = mc^2$ replace by $E_{2n-sys} = m_{2n-sys}c_n^{2n}$,

$v = v_{2n-sys}$, $c = c_{2n-sys}$

results in

$$E_{2n-sys} = \frac{m_{2n-sys}c_n^{2n}}{\sqrt{1-\frac{v_{2n-sys}^2}{c_{2n-sys}^2}}}, \tag{C.1}$$

where E_{2n-sys} = the even $2n$ light dimension energy state systems in theory of relativity frames

n = the light dimension energy state ($n = 1, 2, \ldots, \infty$)

m_{2n-sys} = mass energy in even $2n$ light dimension energy state

c_n^{2n} = even $2n$ light dimension energy state speed in power $2n$

c_{2n-sys} = even $2n$ lights dimension energy state speed

v_{2n-sys} = velocity in even $2n$ lights dimension energy state systems speed

n = the light dimension energy state systems ($n = 1, 2, \ldots, \infty$)

If v_{2n-sys} □ c_{2n-sys} is used to obtain the value called super relativity energy state in even $2n$ light dimension energy systems in theory of relativity frames $E_{2n-sys} = m_{2n-sys}c_n^{2n}$, it follows from (B.2) that replacing k with k_{n_j}, $v = v_{n_j}$, $c = c_{n_j}$ will result in:

$$k_{n_j} = \frac{1}{\sqrt{1-\frac{v_{n_j}^2}{c_{n_j}^2}}}, \tag{C.2}$$

where k_{n_j} is the perturbation ether energy state system in n_j dimension energy state systems ($n_j = 1, 3, 5,\ldots,2j\text{-}1., j \geq 1$).

From the knowledge of the ether as delivered speech before absolute system illustrates the ether system condition as follows:

from (C.2) lead c^{n_j} multiplied by the (keep in mind that value c^{n_j} is the condition c^{n_j} in n dimension ether energy state systems) results in:

$$c^{n_j}k_{n_j} = \frac{c^{n_j}}{\sqrt{1-\frac{v_{n_j}^2}{c_{n_j}^2}}}, \tag{C.3}$$

Replacing c^{n_j} with $c_{3n_j-sys}^{n_j}$, v_{n_j} by v_{3n_j-sys}, c_{n_j} by c_{3n_j-sys} results in:

$$c_{3n_j-sys}^{n_j}k_{n_j} = \frac{c_{3n_j-sys}^{n_j}}{\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{C.4}$$

where $c_{3n_j-sys}^{n_j}$ = odd $3n_j$ light dimension energy state systems speed in power n

n_j = the light dimension energy state systems ($n_j = 1, 3, 5,\ldots,2j\text{-}1., j \geq 1$)

v_{3n_j-sys} = velocity in odd $3n_j$ light dimension energy state systems

c_{3n_j-sys} = odd $3n_j$ lights dimension energy state systems speed

From (C.4):

$$\frac{k_{n_j}}{1/c_{3n_j-sys}^{n_j}} = \frac{1}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{C.5}$$

$\frac{k_{n_j}}{1/c_{3n_j-sys}^{n_j}}$ is replaced with $k_{3n_j-ether}$, resulting in

$$k_{3n_j-ether} = \frac{1}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \tag{C.6}$$

where $k_{3n_j-ether}$ is the constant of the behavioral condition light ether odd $3n_j$ light dimension energy state systems from (A.4) lead value multiply by the following equation:

$$k_{3n_j-ether}E_{2n-sys} = k_{3n_j-ether}m_{2n-sys}c_n^{2n}, \quad \text{(C.7)}$$

from (C.7), replacing $k_{3n_j-ether}E_{2n-sys}$ with E_{3n_j-sys} (keep in mind that the values of the energy that have behavioral condition odd $3n_j$ light dimension energy state systems) results in:

$$E_{3n_j-sys} = k_{3n_j-ether}m_{2n-sys}c_n^{2n}, \quad \text{(C.8)}$$

$$E_{3n_j-sys} = \frac{m_{2n-sys}c_n^{2n}}{\frac{1}{c_{3n_j-sys}^{n_j}}\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \quad \text{(C.9)}$$

$$E_{3n_j-sys} = \frac{m_{2n-sys}c_n^{2n}c_{3n_j-sys}^{n_j}}{\sqrt{1-\frac{v_{3n_j-sys}^2}{c_{3n_j-sys}^2}}}, \quad \text{(C.10)}$$

If $v_{3n_j-sys} << c_{3n_j-sys}$ is used to obtain the value called the odd $3n_j$ light dimension energy state systems in theory of super relative (the ether energy condition remains the same) will result in:

$$E_{3n_j-sys} = m_{2n_j-sys}c_n^{2n}c_{3n_j-sys}^{n_j}, \quad \text{(C.11)}$$

from (C.11), if $c_{3n_j-sys}^{n_j} = \lambda_{effect-3n_j}c_n^n$ if $\lambda_{effect-3n_j}$ is the effect of odd $3n_j$ light dimension energy state systems results in:

$$E_{3n_j-sys} = \lambda_{effect-3n_j}m_{2n-sys}c_n^{2n}c_n^n, \quad \text{(C.12)}$$

results in

$$E_{3n_j-sys} = \lambda_{effect-3n_j}m_{2n-sys}c_n^{3n}, \quad \text{(C.13)}$$

replacing $\lambda_{effect-3n_j}m_{2n-sys} = m_{3n_j-sys}$ results in:

$$E_{3n_j-sys} = m_{3n_j-sys}c_n^{3n}, \quad \text{(C.14)}$$

c_n^{3n} replacing $c_{n_j}^{3n_j}$ in odd $3n_j$ light dimension energy state systems results in:

$$E_{3n_j-sys} = m_{3n_j-sys}c_{n_j}^{3n_j}, \quad \text{(C.15)}$$

In which the super nature relativity energy is in odd $3n_j$ light dimension energy state systems (the equation demonstrates odd $3n_j$ light dimension energy state systems).

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APPENDICE C

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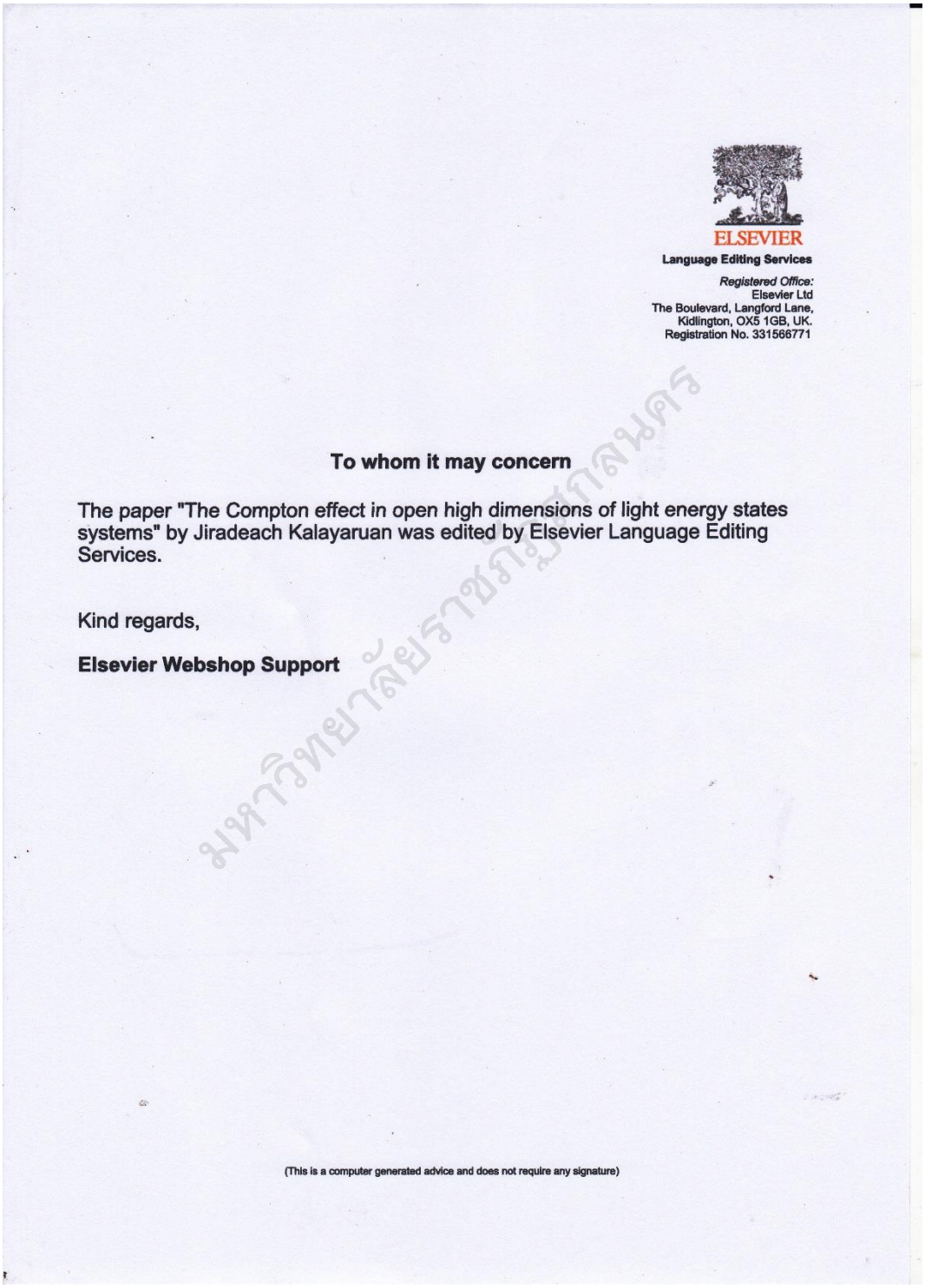

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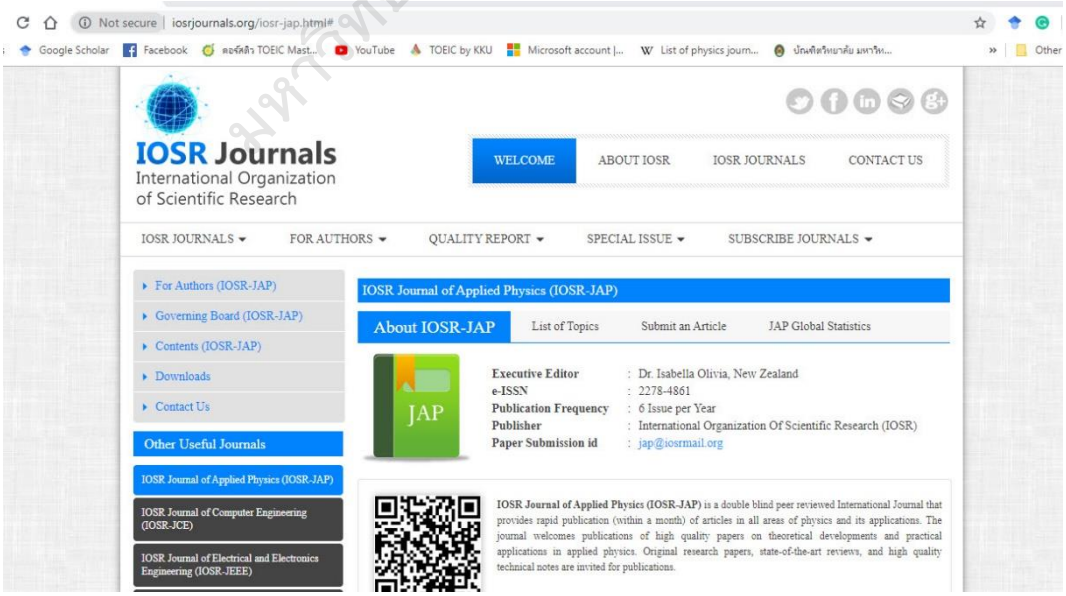

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