The Boundaries of Infinity and the Dance of c at the Hybrid Dynamic Vision in Engineering Physics

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Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

Original Research Article

Abstract

The speed of light c and its momentum in spite of its rest mass is in great triumph at the helm of galore hotch potch to the mathematical physicists in worldwide business of applied physics. There is an abundance of different dancing to the theoretical physicist to curb these panics in different theoretical and laboratory setup in applied physics. The intent of this study is to see the light of riding anchor in view of making a dot over these clouds to escape these dilemmas in applied physics. This study can reveal the open secret in choosing the astrophysical parent equation (x) along with its sister concern equations (xi) and (xii) in the route ahead of inventing the boundaries of the infinity in the equations (xi) and (xii) where $c = \infty$ is the prime concern of the applied mathematicians. Analyses on the equations (x), (xi), (xii) and (xiii) have given vent at the disposal of God particles at the 3rd eye on equation (x) and (xiii) directs the astrophysical Mendelism devoted to understanding the God particle in mathematical astrophysics. An all out physical and applied mathematical planning and policies ahead of searching the God's phenotypic aliving is in galore need dealing in the Arshi, the eye of knowledge at equation (xiii) in theoretical mathematics to carry the day in spiritual physics bearing a remembrance to the VTSP in the study.

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1 Introduction

Light is a current particle from electromagnetic radiation called photons [1,2]. The photon is the single particle of light having field vector of electric charge [3,4]. The photon is a massless particle occupying the momentum [5,6]. This photon is a natural agent stimulating the sight and making things around us visible. This is usually referred to visible light to the human eye creating the sense of sight where visible light is defined as the light of wavelengths 400-700nm, between the infrared and the ultraviolet [7-9].

The main source of light on the Earth is the Sun. Sunlight acts as a catalyst in energy-yielding reaction during photosynthesis [10]. Photosynthesis provides virtually all the energy used in living things. With the development of electric lights and power systems, there creates a question on the vitalities of sunlight given by nature. In this circumstances, the photonic body of sunlight sustaining the supremacy over other manual light sources in living world [11]. This light is moving sometimes in wave forms and sometimes in straight lines maintaining the rules of reflection sometimes and refraction sometimes based on environmental geospatialities [12-14]. It is a matter of great huh as there is the momentum of the light particle although its participation in rest mass [15,16]. It is a matter of fun to pay mathematical music with the physical toys named speed of this light, its mass and velocity in physics and the myth of infinity in applied mathematics [17-19]. These physical giants are picking a quarrel on the route ahead of the boundary of the infinity in applied and theoretical mathematics. Therefore, this study is conducted in search of a true relation of a quantity with the infinity and these scientific sketching passively packed up these quarrel to form the Arshi, the eye of knowledge to help the physicist on the track of realizing the God particle on the shape of photonic body of light in worldwide spiritual physics.

2 Methodology

This is a methodological review study in the cross-sectional multivariate analysis using secondary data analysis method. Secondary data refers to data collected by some researchers in their studies and by some writers in their scientific books. This data analysis technique in mathematical and physical statistics is in popular use aiming to attain the ultimate gaining in a new study. The data is collected from the speed of light, its mass, velocity, momentum and Snell's law in theoretical physics, Lorentz-factor γ is applied physics, the dance of infinity, limit and set theory in applied mathematics and the God particle philosophy in spiritual physics. These theoretical and thematic instruments are used in the different mathematical calculation in applied physics. These instruments have then taken a serious turn on inventing the Arshi, the eye of knowledge to be used in realizing the God's phenotypic Mendelism in spiritual physics with the analyzing music of c and ∞ in the study.

3 Governing Equation in Mathematical Simulation and Scientific Discussions in Spiritual Physics

Light is the brightness coming from the sun, fire, etc. and from electrical devices allowing things to be seen [20]. This definition is for the nursery level learners and therefore the adult learners is not clung to this concept ceasing from their learning adulthood and so they are to count on the light believing in the scientific boast of Physics, the Royal Science. Light is called the electromagnetic radiation within a certain portion of the electromagnetic spectrum as rule as the modern concept in Physics [21-23].

Let us have a look at the dynamics of light in Newtonian mechanics. The momentum of a particle is the product of particle's mass and its velocity [24,25]. Let consider m_l, v_l and ρ_l are the mass of light, its velocity and its momentum respectively. So, we get,

$$m_l v_l = \rho_l \tag{i}$$

In order for the law of conservation of momentum to hold for inertial systems moving at a significant fraction of the speed of light, the special theory of relativity added the Lorentz-factor γ [26-28] to the classical definition of momentum. So, we get from the equation (i),

$$\gamma \, m_l v_l = \rho_l \tag{ii}$$

where,

$$\gamma = [\sqrt{(1 - \beta^2)}]^{-1} \; ;$$

where,

$$\beta = v/c \; ;$$

where,

v = relative velocity between inertial reference frames [29] and
c = speed of light in vacuum $(3 \times 10^8 \text{ ms}^{-1})$ [30-32]

Light travels along with the known value c speed and therefore we get,

$$v_l = c \tag{iii}$$

A Physicist Christopher R. Jacobsen measures the momentum of light using the theoretical physics and experimental setup in the laboratory [33-36]. The momentum of light σ_l (let) gained from Jacobsen's experiment and therefore we get,

$$\rho_l = \sigma_l \tag{iv}$$

According to the modern physics, light is a photon and a photon is a particle of light defined as a discrete bundle (or quantum) of electromagnetic (or light) energy [37,38]. The photon has zero rest mass and always moves at the speed of light within a vacuum [39-41]. The rest mass of light is m_0 (let) and consequently, we get,

$$m_l = m_0 \tag{v}$$

Putting the value of m_l from equation (v) into the equation (ii),

$$\gamma m_0 v_l = \rho_l \tag{vi}$$

Putting the value of v_l from equation (iii) into the equation (vi),

$$\gamma m_0 c = \rho_l \tag{vii}$$

Putting the value of ρ_l from equation (iv) into the equation (vii),

$$\gamma m_0 c = \sigma_l \tag{viii}$$

Calculating the equation (viii),

$$c = \sigma_l / \gamma m_0 \tag{ix}$$

Solving the equation (ix) using the concept of infinity in applied mathematics [42,43],

$$c = \infty \tag{x}$$

Analyzing the equation (x), we get the following set using set theory in algebra [44-46],

$$\infty = \{ - c, ..., + c\} \tag{xi}$$

Analyzing the equation (xi), we get the following gesture applying the main point in algebraic simulation as the – and + sign are geospatial factors [47-50],

$$\infty = \{ - c, ..., \ 0, \ ...., + c\} \tag{xii}$$

Analyzing equation (xi) and (xii), we can say the scientific dance of these duo gesture being the boundaries of infinity at the set theory in mathematical physics [51].

Analyzing the equations (x), (xi) and (xii) in mathematical physics, we can naming the speed of light (photon) being infinity and infinity is the property of God having rest mass m_0 dwelling everywhere [52-54]. Therefore the light particle in astrophysics could be proposed in cling to God particle in applied physics on the basis of Heisenberg's uncertainty principle or Heisenberg's indeterminacy principle (simply the uncertainty principle) in engineering mathematics [55-58].

Analyzing the equation (ii), (iii) and (x), we can say that c is the velocity of the light particle. There are n_G (let) particles of God and hence the velocity of God v_G is on the following gesture in nonlinear physics [59, 60],

$$v_G = n_G c \tag{xiii}$$

Taking the equation (x), (xi), (xii) and (xiii) into consideration in spiritual concept at Mendelism in nutritional biochemistry and health physics [61-64], we can term this equation as the genotypic characteristics of the God and this equation is the 3rd eye to one gifted by the Goddess of knowledge Swaraswati and the eye of knowledge [arshi (Bengali language)] decided by famous Bengal philosopher Lalon Shah (Mahatma Lalon) to explore the phenotypic novelties of God [65-67] as it is harder to guess Him as He has the refraction property counting on the Snell's law ($\sin\theta_1/\sin\theta_2 = v_1/v_2; \theta_1 = $ angle of incidence, $\theta_2 = $ angle of refraction and $v_1/v_2 = $ ratio of phase velocities) [68-70] and the equation (xiii) could be prevailed with the vitalism theory in spiritual physics (VTSP) by name as a new modeling in engineering physics as like as the German chemist Friedrich Wohler derived vitalism theory in biochemistry living at the uncertainty principle derived by German physicist Werner Heisenberg as a new trend in 1927 in engineering physics [71-78].

4 Conclusions

The battle between the infinity and limit is the greatest World War in mathematical physics. The current study dynamics has shown a smooth path to deviate from the war rendering the mathematical relation $c = \infty$ in equation (x) and the extension of this equation have given vent a limit of ∞ in equation (xi) and (xii). The analyses centring the equation (ii), (iii) and (x) have coincided with the mathematical relation $v_G = n_G c$ in equation (xiii) and this relation passively guaranteed for the realizing assay on the God particles in spiritual physics. Future research should adopt these cozy modelling in equations (x) and (xiii) for taking an intervention to understand the boundaries of infinity with the dance of c and the God in the apt instrumental setup in a well-developed laboratory in the department of applied and spiritual physics and also in computational mathematics.

Competing Interests

Author has declared that no competing interests exist.

References

[1]   Kumar N. Comprehensive physics XII. Laxmi Publications. 2008;1416.

[2]   Moulder JE. Static electric and magnetic fields and human health; 2007.

[3]   Maxwell JC. Treatise on electricity and magnetism. Dover Publications Inc. 1891;32-33.

[4]   Ryder LH. Quantum field theory (2nd edn.). Cambridge University Press; 1996.

[5]   Rindler W. Introduction to special relativity (2nd edn.). Oxford Science Publications. 1991;82-84.

[6]   Fedtke C, Mans F, Ho Arthur. The entrance pupil of the human eye: A three-dimensional model as a function of viewing angle. Optics Express. 2010;18(21):22364-76.

[7]   Assad MEH, Bani-Hani EH, Yousef B, Sedaghat and Tawalbeh M. Simplified model for thermo and diffusiophoretic deposition in heat exchanger. JP J Heat Mass Transfer. 2018;15(1):1-13.

[8]   Hakim MA. Simulating the ideal body weight in human populations. Int J Biochem Biophys. 2017;5(4):79-82.

[9]   Avison J. The world of physics. Nelson Thornes. 1999;460.

[10]   Venn AA, Loram JE, Douglas AE. Photosynthetic symbiosis in animals. J Enperiment Botany. 2008; 59(5):1069-80.

[11]   Quandt BM, Scherer LJ, Boesel LF, Wolf M, Bona GL, Rossi RM. Body monitoring and health supervision by means of optical fibers based sensing systems in mediacal textiles. Adv Healthc Mater. 2015;4(3):330-55.

[12]   Lekner J. Theory of reflection, of electromagnetic and particle waves. Springer; 1987.

[13]   Bloembergen N, Pershan PS. Light waves at the boundary of nonlinear media. Physical Rev. 1962; 128:606.

[14]   Chen R, Guinness RE. Geospatial computing in mobile devices (1st edn.). Norwood, MA: Artech House. 2014;228.

[15]   Gonzalez-Martin GR. A geometric definition of mass. Gen Rel Grav. 1994;26:1177.

[16]   Hakim MA. Mathematical modeling of energy balancing for diet plannning in nutritional physics. Int J Nutr Diet. 2017;5(1):29-41.

[17]   Resnick R, Walker J. Fundamentals of physics. Wiley; 7 Sub Edn.; 2004.

[18]   Dutta B. Ranganathan's elucidation of suject in the light of 'Infinity (∞)'. Annals of Library and Information Studies. 2015;62:255-64.

[19] Hakim MA. Simulating the ideal body mass in adult human samples. Int J Sport Sci Phys Educ. 2017;2(4):57-60.

[20] Available:https://dictionary.cambridge.org/dictionary/english/light

[21] Pal GK, Pal P. Textbook of practical physiology (1st edn.). Chennai: Orient Blackswan. 2001;387.

[22] Buser PA, Imbert M. Vision. MIT Press. 1992;50.

[23] Bradt H. Astronomy methods: A physical approach to astronomical observations. Cambridge Universirty Press. 2004;26.

[24] McGill and King. Engineering mechanics: an introduction to dynamics (3rd edn.). PWS Publishing Company; 1995.

[25] Ho-Kim Q, Kumar NL, Harry CS. Invitation to contemporary Physics. World Scientific. 2004;19.

[26] Einstein A. Relativity: The special and general theory. New York: H. Holt and Company; 1916.

[27] Forshaw J, Smith G. Dynamics and relativity. John Wiley and Sons; 2014.

[28] Alsowaidi N, Eltaif T, Mokhtar MR, Alaghbari K. Mitigation of inter-symbol interference and four wave mixing using CDMA technology in hybrid system. JP J Heat Mass Transfer. 2018;15(1):147–156.

[29] Fields D. Galilean relativity; 2015.

[30] Mendelson KS. The story of c. Am J Phys. 2006;74(11):995-997.

[31] Sieger RS, Richards DD. Development of time, speed and distance concepts. Dev Psychol. 1979;16(3):288-298.

[32] Rahman A, Hakim MA. Measuring modified mass energy equivalence in nutritional epidemiology: A proposal to adapt the biophysical modelling approach. Int J Stat Med Res. 2016;5(3):219-223.

[33] Zeidler E. Nonlinear functional analysis and its applications IV: Applications to mathematical physics. New York, NY: Springer New York; 1988.

[34] Jacobsen CR. Measuring the momentum of light.
Available:http://www.gamma.nbi.dk/Galleri/gamma152/christopherrjacobsen.pdf

[35] Linkon KMMR, Prodhan UP, Hakim MA, Alim MA. Study on the physicochemical and antioxidant properties of nigella honey. Int J Nutr Food Sci. 2015;4(2):137-140.

[36] Hakim MA. Physicochemical properties of dhania honey. Am J Food Sci Nutr Res. 2015;2(5):145-148.

[37] Amsler C. Review of particle physics: Gauge and higgs bossons. Phys Lett B. 2008;667:1.

[38] Einstein A. Uber einen die Erzeugung und Verwandlung des Lichtes betreffenden heuristischen Gesichtspunkt. Annalen der Physik. 1905;17(6):132-148.

[39] Chambers A. Modern vacuum physics. Boca Raton: CRC Press; 2004.

[40]   Joos G. Theoretical physics. London and Glasgow: Blackie and Sons Limited. 1951;679.

[41]   Harris NS. Modern vacuum practice. McGraw-Hill. 1989;3.

[42]   Gowers T, Barrow-Green J, Leader I. The princeton companion to mathematics. Pricenton University Press. 2008;616.

[43]   Hakim MA. Modeling food energy in bioenergetics. J Adv Med Pharmaceut Sci. 2017;14 (4):1-7.

[44]   Iaqn S. Infinity: A very short introduction. Oxford University Press. 2017;117.

[45]   Cantor G. Ueber eine Eigenschaft des Inbegriffes aller reelen algebraischen Zahlen. Reine Angew Math. 1874;77:258-262.

[46]   Foerster PA. Algebra and trigonometry: functions and applications. Upper Saddle River, NY: Prentice Hall. 2006;535.

[47]   Rahman A. Estimating small area health-related characteristics of populations: A methodological review. Geospat Health. 2017;12:3-14.

[48]   Eric S. Handbook of analysis and its foundations. Academic Press. 1997;12.

[49]   Rahman A, Hakim MA. Malnutrition prevalence and health practices of homeless children: a cross-sectional study in bangladesh. Sci J Public Health. 2016;4(1-1):10-15.

[50]   Rahman A, Hakim MA. An epidemiological study on hygiene practice and malnutrition prevalence of eeggars children in bangladesh. Int J Nutr Diet. 2016;4(1):29-46.

[51]   Burden S, Steel D. Constraint choice for spatial microsimulation. Popul Space Place. 2016;22:568-83.

[52]   Jech T. Set theory. Springer-Verlag; 2002.

[53]   Available:https://strangenotions.com/einstein-god/

[54]   Wade NJ. Early Studies of binocular and binaural directions. Vision. 2018;2(1):13.

[55]   Available:https://www.allaboutgod.com/god-is-omnipresent-faq.htm

[56]   Onyisi P. Higgs boson FAQ. University of Texas ATLAS Group; 2012.

[57]   Gunion DK, Haber. The Higgs hunter's guide (1st edn.). 1999;11.

[58]   Keeler JE. The importance of astrophysical research and the relation to other physical sciences. Astrophys J. 1897;6(4):271-288.

[59]   Heisenberg W. Uber denanschaulichen Inhalt der quantentheoretisschen Kinematik und Mechanik. Zeitschrift fur Physik. 1927;43(3-4):172-198.

[60]   Campbell DK. Nonlinear physics: Fresh breather. Nature. 2004;432(7016):455-456.

[61]   Lazard D. Thirty years of polynomial system solving, and now? J Sumboloic Computation. 2009;44(3):222-231.

[62]   Hakim MA. Biophysical modeling of dietary energy in biochemical modeling. *Eur J Biophys* 2017; 5 (3): 57-61.

[63]   Musaiger AO, Hassan AS, Obeid O. The paradox of nutrition-related diseases in the Arab countries: the need for action. Int J Environ Res Public Health. 2011;8(9):3637-71.

[64]   Schmidt LE. Restless souls: the making of america1 spirituality. San Francisco: Harper; 2005.

[65]   Rahman A, Hakim MA. Modeling health status using the logarithmic biophysical modulator. J Public Health Epidemiol. 2017;9(5):145-150.

[66]   Bowler PJ. The Mendelian revolution: the emergence of hereditarian concepts in modern science and society. John Hopkins University Press; 1989.

[67]   Kinsley D. Hindu Goddesses: Vision of the devine femine in the Hindu religious traditions. University of California Press; 1988.

[68]   Urban HB. Songs of ecstasy tantric and devotional songs from colonial Bengal. New York: Oxford University Press. 2001;18.

[69]   Ward DW, Nelson KA, Webb KJ. On the physical origins of the negative index of refraction. New J Phys. 2005;7:213.

[70]   Stanton NA, Salmon PM, Walker GH, Jenkins D. Genotype and phenotype schemata and their role in distributed situation awareness in collaborative systems. Theor Issue Ergonomics Sci. 2009;10(1):43-68.

[71]   Dill LM. Refraction and the spitting behabior of the archerfish (*Toxotes chatareus*). Behav Ecolog Sociobiol. 1977;2(2):169-184.

[72]   Williams EA. A cultural history of medical vitalism in enlightenment Montpellier. 2003;4.

[73]   Wohler F. Ueber kunstliche Bildung des Harnstoffs. Annalen der Physik und Chemie. 1828; 88(2):253-256.

[74]   Macagno EO, Christensen J, Lee CL. Modeling the effect of wall movement on absorption in the intestine. Am J Physiol. 1982;243:G541-G550.

[75]   Thawinrak W, Calder J. Hight-order filtered schemes for the Hamilton-Jacobi limit of nondominated sorting. J Math Res. 2018;10(1):90.

[76]   Hakim MA, Kamruzzaman M. The dance of poverty and education for childhood nutritional victimization in Bangladesh. J Biol Environ Engg. 2016;1(1):6-9.

[77]   Belyaev A. Trends of stellar evolution in modern physics. Univers J Phys Appl. 2017;11(6):247-263.

[78]   Kennard EH. Zur Quantenmechanik einfacher Bewegungstypen. Zeitschrift fur Physik. 1927;44(4-5): 326-352.