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What Is the Meaning of Imaginery Number with Nucleotide Bases as Regards to Quantum Perspective Model?

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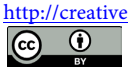


Abstract

This paper attempts to express imaginary number with chemical nucleotide bases (A T, G, C and U) as regards to Quantum Perspective Model. At first, the exact Euler's formula was written just like as in here "$e^{xi} = \cos(x) + i{\cdot}\sin(x)$". Secondly, twin pi is substituted for x(x = 2Π). Thirdly, the result of this process equals to "$e^{2i\pi} = \cos(2\Pi) + i{\cdot}\sin(2\Pi)$". Fourthly, sort up this formula just like as in here: "$e^{2i\pi} = 1 + i0$" = +1. Fifthly, multiply both sides of the equation by minus one'-$e^{2i\pi} = -1$. Sixthly, this expression equals to "i^2". These numbers can be expressed as genetic codes [Adenine (A), Thymine (T), Guanine (G), Cytosine (C) and Uracil (U)]. Seventhly, after converting process of this formula can be expressed as "*AATGGGCCCUUGAAGAACUUUAAGTTTGGG*". Eighthly, after searching these sequences in the NCBI (The National Center for Biotechnology Information) database, the NCBI search result was similar to bony fishes ("Danio Rerio" and "Danio Aesculapi") and flat worms. Ninthly, the common feature of the NCBI search result for some irrational numbers is that Euler numbers are the same as these results, as is the case with Pi in particular. Tenthly, let's not forget that some irrational numbers in the gene database are similar to these creatures, and that there is a genetic link between Fibonacci sequences in Mathematics and Euler numbers. Finally, this article proved not only the relationship between imaginary number and nucleotide bases, but also the common relationship between NCBI database search "Danio Rerio" and "Danio Aesculapi" of some irrational numbers. In sum, could this similarity lead to a new paradigm for the imaginary number as a new dimension, *i.e.* if we take time as the fourth dimension, could it be the fifth dimension? As a result, the expression of imaginary number with genetic codes reaches striking meaningful results that will shed light on the Quantum Perspective Model, which is a new research method among Quantum Physics, Biology and Electricity and Mathematics.

Subject Areas

Electric Engineering, Electrochemistry, Genetics, Mathematics, Number Theory, Quantum Mechanics, Quantum Physics

Keywords

Biology, Mathematics, Electrochemistry, Nucleotide Bases, Quantum Physics, Binary Number Base System, Electricity, Quantum Perspective Model, Imaginary Number, NCBI, Mandelbrot Sets, Danio Rerio and Danio Aesculapi

1. Introduction

Prior to this article the relations between some constant numbers and genetic codes were researched by K. Köklü [1] and T. Ölmez [2]. At first, relations between Pi numbers and genetic codes were published by K. Köklü [3]. Secondly, the relations between Planck's numbers and genetic codes were revealed by T. Ölmez [4]. Thirdly, relations between basic atomic weight of particles (proton, neutron and electron) and nucleotide bases were put forth by T. Ölmez [5]. Fourthly, the relations between Bohr Magneton and Boltzmann constants and nucleotide bases were researched by T. Ölmez again [5]. Lastly, the the relations between Euler's Identity and imaginary number and nucleotide bases and bony fishes will be explained by this article at next pages.

Complex numbers (a + bi) are used in Mathematics, Physics, engineering, electrical engineering and Quantum Physics. Fields include describing complex electrical currents, designing music synthesizers that calculate wavelengths, engineering analysis of stress on beams. Calculation of the movement of shock absorbers, design of dynamo and electric motors, creation of Mandelbrot sets (see **Figure 1**) and manipulating large matrices used in modelling. Especially, in this article cited in *electrical engineering* denotes complex numbers with a "j" because "i" is already in use to represent current a + bi becomes a + bj. In electricity; AC (Alternating Current Electricity) changes between positive and negative in a *sine wave*. (Remember, Euler's Identity also consist of both cosines and sinus wave!). In fact, in real life, complex numbers are used by engineers and physicists to measure electrical currents, analyze stresses in structures such as bridges and buildings, and study the flow of fluids. When combining two AC currents, it may not match properly. Namely, it can be very hard to figure out the new current. But using *imaginary* numbers and real numbers together makes it a lot easier to do the calculations (The Quadratic Equation can give results that include imaginary numbers). In sum, imaginary numbers are used in the real world. Engineers use them to describe electrical currents. In *electricity*, circuit components such as resistors, inductors and capacitors all oppose the flow of the current. This opposition is called resistance for resistors and reactance for inductors and capacitors. A circuit's total opposition to current flow is impedance. All

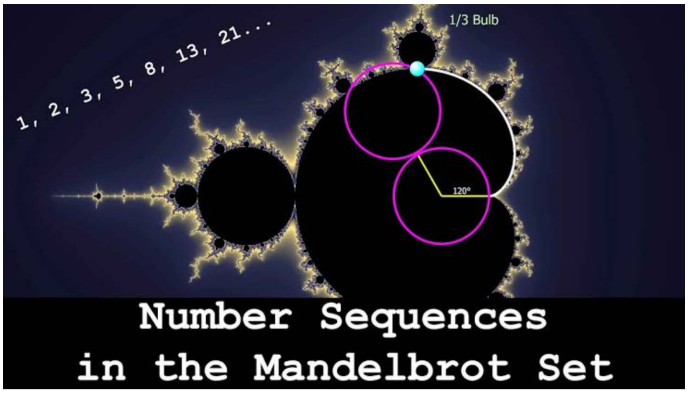


Figure 1. Mandelbrot sets (https://images.app.goo.gl/k3TqgQRyY2bnkqGC8).

of these quantities are measured in ohms. There are some rules about electricity, these are conservation of energy and voltage, Kircoff's law and generalized conservation of power, Kircoff's voltage law (KVL) and Kircoff's current law (KCL). But an article cited by J.L. Williams exploring the relationship between the fundamental laws of circuit theory (Kircoff's voltage law (KVL) and Kircoff's current law (KCL) and Tellegen's theorem or generalized conservation of power principle), active and reactive current components and their corresponding active and reactive powers. It is emphasized that the active and reactive currents do not satisfy Kircoff's current law (KCL). The concept of active and reactive currents has not only been defined for *sinusoidal currents* and voltages but also for situations such as the case of the instantaneous currents and the case of periodic non-sinusoidal currents [6].

2. Methods

The representation of nucleotide bases (AT, G, C, and U) according to the Quantum Perspective Model is explained by chemical formulas. Regarding these chemical formulas, it was calculated according to the atomic masses of the elements. However, this article aims to investigate the relationship between imaginary numbers and nucleotide bases. In summary, the purpose of this research article is to explore the relationships between atomic weights, number base systems, and chemical formulas of nucleotide bases of imaginary numbers and Euler's Identity.

The chemical structures of nucleotide bases consist of Carbon(C), Nitrogen (N), Oxygen (O) and Hydrogen (H) [7]. For the representation of nucleotide bases (A, T, C, G and U) in chemical atoms; please, see **Table 1**.

The Calculation of the Euler's Identity and Imaginary Number as Nucleotide Bases

At first, the exact Euler formula was written as here "$e^{xi} = \cos(x) + i{\cdot}\sin(x)$". Secondly, the twin pi is substituted for x ($x = 2\Pi$). Thirdly, the result of this operation is equal to "$e^{2}i\pi = \cos(2\Pi) + i{\cdot}\sin(2\Pi)$". Fourthly, order this formula as fol-

lows: "$e^{2}i\pi = 1 + i0$" = +1. Fifthly, multiply both sides of the equation by minus one'-$e^{2}i\pi = -1$. Sixthly, this expression is equal to "i^{2}". These numbers can be expressed as genetic codes [Adenine (A), Thymine (T), Guanine (G), Cytosine (C) and Uracil (U)] (please, see Table 2). Seventhly, the operation of this formula after conversion can be expressed as "*AATGGGCCCUUGAAGAACUUUAAGTTTGGG*". After searching for these sequences in the NCBI (National Center for Biotechnology Information) database, the NCBI search result was similar to bony fish and some other creatures.

In sum, as regards to Quantum Perspective Model, after the expression of imaginary number as nucleotide bases, some important consequences were reached by this article. This result will be put forth in next pages.

3. Results and Discussion

3.1. Results

Before this study; Kevser Köklü has published articles on the Quantum Perspective Model, not only about the square of the speed of light [1], but also about the nucleotide-based Pi numbers [3]. In addition to these; Pi numbers once again extended version [8], golden ratio numbers [9], Euler numbers [10], square root of two [11], square root of three [12], square root of five [13], square root of seven [14], square root of ten [15] and Fibonacci numbers [16] were also published by Tahir ÖLMEZ. Even the Euler Identity [17] and the extended golden ratio numbers [18] were also calculated. In summary, the codes of all these irrational numbers explained by a genetic sequence (mentioned above) can be found in this diagram (see, Table 3).

Table 1. The representation of nucleotide bases (A, T, C, G and U) in chemical atoms.

ATOMS /NUCLEOTIDE BASES	*C = 6*	*H = 1*	*O = 8*	*N = 7*	*SUM*
ADENINE: C5H5N5	5	5	-	5	70
THYMINE: C5H6N2O2	5	6	2	2	66
CYTOSINE: C4H5N3O1	4	5	1	3	58
GUANINE: C5H5N5O1	5	5	1	5	78
URACIL: C5H4N2O2	5	4	2	2	64

Table 2. The calculation of the Euler's identity and imaginary number as nucleotide bases (A, T, C, G and U).

π bases	T	C	G	A	T	T	A	T	A	C	***NOTE:*** Base pairs Universal Genetic According to the Code Table, "U" instead of "A" for Adenine, Uracil, used. [30].
2π bases (***twice***)	TT	CC	GG	AA	TT	TT	AA	TT	AA	CC	
e bases	*A*	*C*	*G*	*C*	*C*	*G*	*A*	*C*	*A*	*C*	
$e^{2i\pi}$	TTA	CCC	GGG	AAC	TTC	TTG	AAA	TTC	AAA	CCC	
$-e^{2i\pi}$ (***reverse***)	AAT	GGG	CCC	UUG	AAG	AAC	UUU	AAG	TTT	GGG	
$i^2 = i \times i = (-1)$	***AAT***	***GGG***	***CCC***	***UUG***	***AAG***	***AAC***	***UUU***	***AAG***	***TTT***	***GGG***	

Table 3. The summary of some irrational numbers and nucleotide bases.

Irrational Numbers	Nucleotide Bases
√2 [11]	GGATGTUTATTGAGTGAUAA
√3 [12]	GGATGAUTAUGGGTTTAGAAA
√5 [13]	ATTTATTUAATAUATAAUUUUATTGA
√7 [14]	GATTCUUUACTAGAGTTACTAGTTTGATT
√10 [15]	ATAAGTCATAAGTGTATTAGTTTAAAACTG
Pi Numbers (as a 22/7) [3]	CTA [Cytosine (C), Thymine (T),Adenine (A)]
Pi Numbers (as an extended form) [8]	TUGATTATAUTGGTTGGTTGTTAAUGGTAU
Euler's Identity [17]	AAAGGCUUGCCCAACAAGCCAAACCCAGGC
Euler's Numbers [10]	ACGCCGACACTAACUATU
Golden Ratio Numbers (only "618") [9]	CAAT Box "GGCCAATCT"; TATA Box "TATAAAA"
Golden Ratio Numbers (Extended form) [18]	ACATCC

According to Quantum Perspective Model, prior to this article, the relationship between the square of the speed of light (c^2) [1] by K. Köklü and Planck's constant numbers [2], Avogardo's Number [4], the atomic weight of proton [4], the atomic weight of electron [4], the atomic weight of neutron [4], the Boltzmann constant [5]. The Bohr magneton constant [5] genetic codes were studied by T. Ölmez (please, see **Table 4**). At first, the calculation of the Faraday's constant numbers [19] as nucleotide bases also can be expressed with Uracil (U) and Guanine (G) nucleotide base and Adenine (A) and Guanine (G) "AG" nucleotide base [7] Secondly, after searching this sequence at NCBI (The National Center for Biotechnology Information) database [please, see (**Figure 14**)], the consequences are many living organisms. Fourthly, these are *flat worms*, flies, mothseudicots, bivalves, gastropods, butterflies, caecilians, primates, mites, stonycorals, stoneflies, spiders, bees, crustaceans, starfish, rodents, hymenopterans, birds, placentals, nematodes, lancelets, viruses, segmented worms, beetles and especially *bony fishes* (*Danio Rerio and Danio Aesculapi*) (see, **Table 3**) and please, see (**Figures 2-14**) [20]. Lastly, NCBI (The National Center for Biotechnology Information) search result of golden ratio numbers sequences "ACATCC" are very interesting model organism consequence just like as "Symphodus melops" (Corking Wrasse). See (**Figure 7**) [18].

3.2. Discussion

According to Quantum Perspective Model, prior to this article, the relationship between Planck's constant numbers [2] and genetic codes were studied by T. Ölmez. The consequence of this article can be expression of Planck's constant numbers as both Adenine (A) and Thymine (T) nucleotide bases. Besides, calculation of Faraday constants as nucleotide bases can be expressed in terms of nucleotide bases Uracil (U) and Guanine (G) "UG" or Adenine (A) and Guanine (G) "AG" [19]. Previously, this twin result may be explained by *Quantum Superposi-*

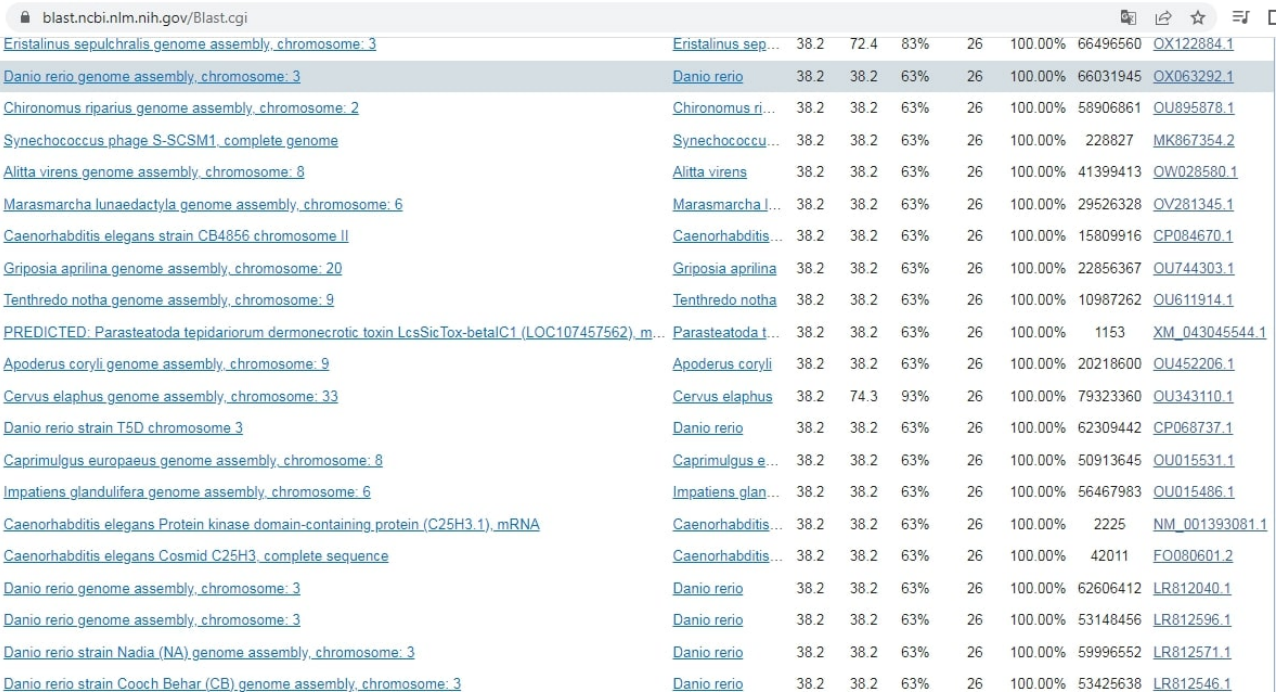
tion. But also the link between some irrational numbers and genetic codes were researched by Tahir Ölmez, too (please, see Table 3). Not only the NCBI database results of some irrational numbers (√2, √3, √5, √7, √10, Pi, Euler's and golden ratio numbers) are *bony fishes* ,but also the NCBI database result of the Faraday's constant numbers are *silk worms* [21] [22] [23]. Both of these consequences of the NCBI explosion are crucial model creatures for the genetic analysis model. Let alone previous explanations, the expression of imaginary numbers as genetic codes "*AATGGGCCCUUGAAGAACUUUAAGTTTGGG*" also consist of stop codons [24] just like as "UAG" and "UAA". In addition, while pi numbers are expressed as genetic codes, they also consist of the genetic codes of some of the Euler numbers (please, see Table 3). A common feature of some irrational and complex numbers is that NCBI blasts consist of bony fish, particularly Danio Rerio and Danio Aesculapi (please, see Table 5).

Table 4. The summary of some constant numbers and nucleotide bases.

SOME CONSTANT NUMBERS	NUCLEOTIDE BASES
The square of the speed of light (c^2) [1]	AUC or CCATAUUTU/CCACAUUTU
Planck's constant numbers [2]	Adenine (A) or Thymine (T)
Avogardo's Numbers [4]	Uracil (U)
The atomic weight of proton [4]	Guanine (G)
The atomic weight of electron [4]	Uracil (U)
The atomic weight of neutron [4]	Adenine (A) or Thymine (T)
The Boltzmann constant [5]	Guanine (G)
The Bohr magneton constant [5]	Thymine (T)
The Faraday's constant numbers [19]	Uracil (U) and Guanine (G) "UG" OR Adenine (A) and Guanine (G) "AG"

Table 5. The NCBI (National Biotechnology Information Center) summary and genetic sequences of some irrational numbers.

Numbers (Irrational, complex)	NCBI Results
i (imaginary number)	Danio Rerio (Zebra fish), Danio Aesculapii, Bony fish
√2 [11]	Danio Rerio, Timema, Bony fish
√3 [12]	Denticle Herring, Bony fish, Bats
√5 [13]	Danio Rerio (Zebra fish), Bony fish
√7 [14]	Danio Rerio, Danio Aesculapii, Bony fish
√10 [15]	Danio Kyathit, Danio Aesculapii, Bony fish
Pi Numbers (as a 22/7) [3]	Danio Rerio (Zebra fish), Bony fish
Pi Numbers (as an extended form) [8]	Danio Rerio (Zebra fish), Bony fish, Timema, Danio Kyathit
Euler's Identity [17]	Danio Kyathit, Danio Rerio (Zebra fish), Bony fish, Timema
Euler's Numbers [10]	Danio Rerio (Zebra fish), Bony fish, bat coronavirus
Golden Ratio Numbers	Bony fishes (Symphodus Melops, Xyrauchen texanus)



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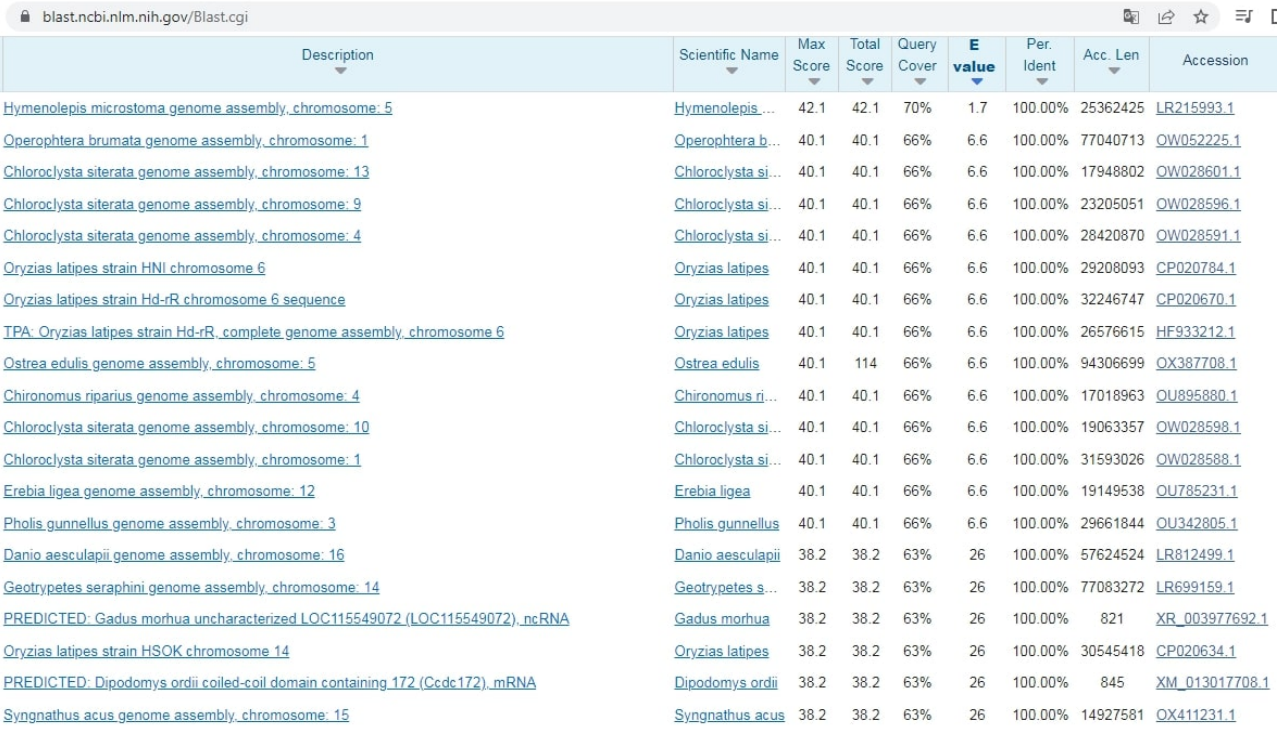
Eristalinus sepulchralis genome assembly, chromosome: 3	Eristalinus sep...	38.2	72.4	83%	26	100.00%	66496560	OX122884.1
Danio rerio genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	66031945	OX063292.1
Chironomus riparius genome assembly, chromosome: 2	Chironomus ri...	38.2	38.2	63%	26	100.00%	58906861	OU895878.1
Synechococcus phage S-SCSM1, complete genome	Synechococcu...	38.2	38.2	63%	26	100.00%	228827	MK867354.2
Alitta virens genome assembly, chromosome: 8	Alitta virens	38.2	38.2	63%	26	100.00%	41399413	OW028580.1
Marasmarcha lunaedactyla genome assembly, chromosome: 6	Marasmarcha l...	38.2	38.2	63%	26	100.00%	29526328	OV281345.1
Caenorhabditis elegans strain CB4856 chromosome II	Caenorhabditis...	38.2	38.2	63%	26	100.00%	15809916	CP084670.1
Griposia aprilina genome assembly, chromosome: 20	Griposia aprilina	38.2	38.2	63%	26	100.00%	22856367	OU744303.1
Tenthredo notha genome assembly, chromosome: 9	Tenthredo notha	38.2	38.2	63%	26	100.00%	10987262	OU611914.1
PREDICTED: Parasteatoda tepidariorum dermonecrotic toxin LcsSicTox-betaIC1 (LOC107457562), m...	Parasteatoda t...	38.2	38.2	63%	26	100.00%	1153	XM_043045544.1
Apoderus coryli genome assembly, chromosome: 9	Apoderus coryli	38.2	38.2	63%	26	100.00%	20218600	OU452206.1
Cervus elaphus genome assembly, chromosome: 33	Cervus elaphus	38.2	74.3	93%	26	100.00%	79323360	OU343110.1
Danio rerio strain T5D chromosome 3	Danio rerio	38.2	38.2	63%	26	100.00%	62309442	CP068737.1
Caprimulgus europaeus genome assembly, chromosome: 8	Caprimulgus e...	38.2	38.2	63%	26	100.00%	50913645	OU015531.1
Impatiens glandulifera genome assembly, chromosome: 6	Impatiens glan...	38.2	38.2	63%	26	100.00%	56467983	OU015486.1
Caenorhabditis elegans Protein kinase domain-containing protein (C25H3.1), mRNA	Caenorhabditis...	38.2	38.2	63%	26	100.00%	2225	NM_001393081.1
Caenorhabditis elegans Cosmid C25H3, complete sequence	Caenorhabditis...	38.2	38.2	63%	26	100.00%	42011	FO080601.2
Danio rerio genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	62606412	LR812040.1
Danio rerio genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	53148456	LR812596.1
Danio rerio strain Nadia (NA) genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	59996552	LR812571.1
Danio rerio strain Cooch Behar (CB) genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	53425638	LR812546.1

Figure 2. The NCBI blast results for danio rerio [20].



blast.ncbi.nlm.nih.gov/Blast.cgi

Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
Hymenolepis microstoma genome assembly, chromosome: 5	Hymenolepis ...	42.1	42.1	70%	1.7	100.00%	25362425	LR215993.1
Operophtera brumata genome assembly, chromosome: 1	Operophtera b...	40.1	40.1	66%	6.6	100.00%	77040713	OW052225.1
Chloroclysta siterata genome assembly, chromosome: 13	Chloroclysta si...	40.1	40.1	66%	6.6	100.00%	17948802	OW028601.1
Chloroclysta siterata genome assembly, chromosome: 9	Chloroclysta si...	40.1	40.1	66%	6.6	100.00%	23205051	OW028596.1
Chloroclysta siterata genome assembly, chromosome: 4	Chloroclysta si...	40.1	40.1	66%	6.6	100.00%	28420870	OW028591.1
Oryzias latipes strain HNI chromosome 6	Oryzias latipes	40.1	40.1	66%	6.6	100.00%	29208093	CP020784.1
Oryzias latipes strain Hd-rR chromosome 6 sequence	Oryzias latipes	40.1	40.1	66%	6.6	100.00%	32246747	CP020670.1
TPA: Oryzias latipes strain Hd-rR, complete genome assembly, chromosome 6	Oryzias latipes	40.1	40.1	66%	6.6	100.00%	26576615	HF933212.1
Ostrea edulis genome assembly, chromosome: 5	Ostrea edulis	40.1	114	66%	6.6	100.00%	94306699	OX387708.1
Chironomus riparius genome assembly, chromosome: 4	Chironomus ri...	40.1	40.1	66%	6.6	100.00%	17018963	OU895880.1
Chloroclysta siterata genome assembly, chromosome: 10	Chloroclysta si...	40.1	40.1	66%	6.6	100.00%	19063357	OW028598.1
Chloroclysta siterata genome assembly, chromosome: 1	Chloroclysta si...	40.1	40.1	66%	6.6	100.00%	31593026	OW028588.1
Erebia ligea genome assembly, chromosome: 12	Erebia ligea	40.1	40.1	66%	6.6	100.00%	19149538	OU785231.1
Pholis gunnellus genome assembly, chromosome: 3	Pholis gunnellus	40.1	40.1	66%	6.6	100.00%	29661844	OU342805.1
Danio aesculapii genome assembly, chromosome: 16	Danio aesculapii	38.2	38.2	63%	26	100.00%	57624524	LR812499.1
Geotrypetes seraphini genome assembly, chromosome: 14	Geotrypetes s...	38.2	38.2	63%	26	100.00%	77083272	LR699159.1
PREDICTED: Gadus morhua uncharacterized LOC115549072 (LOC115549072), ncRNA	Gadus morhua	38.2	38.2	63%	26	100.00%	821	XR_003977692.1
Oryzias latipes strain HSOK chromosome 14	Oryzias latipes	38.2	38.2	63%	26	100.00%	30545418	CP020634.1
PREDICTED: Dipodomys ordii coiled-coil domain containing 172 (Ccdc172), mRNA	Dipodomys ordii	38.2	38.2	63%	26	100.00%	845	XM_013017708.1
Syngnathus acus genome assembly, chromosome: 15	Syngnathus acus	38.2	38.2	63%	26	100.00%	14927581	OX411231.1

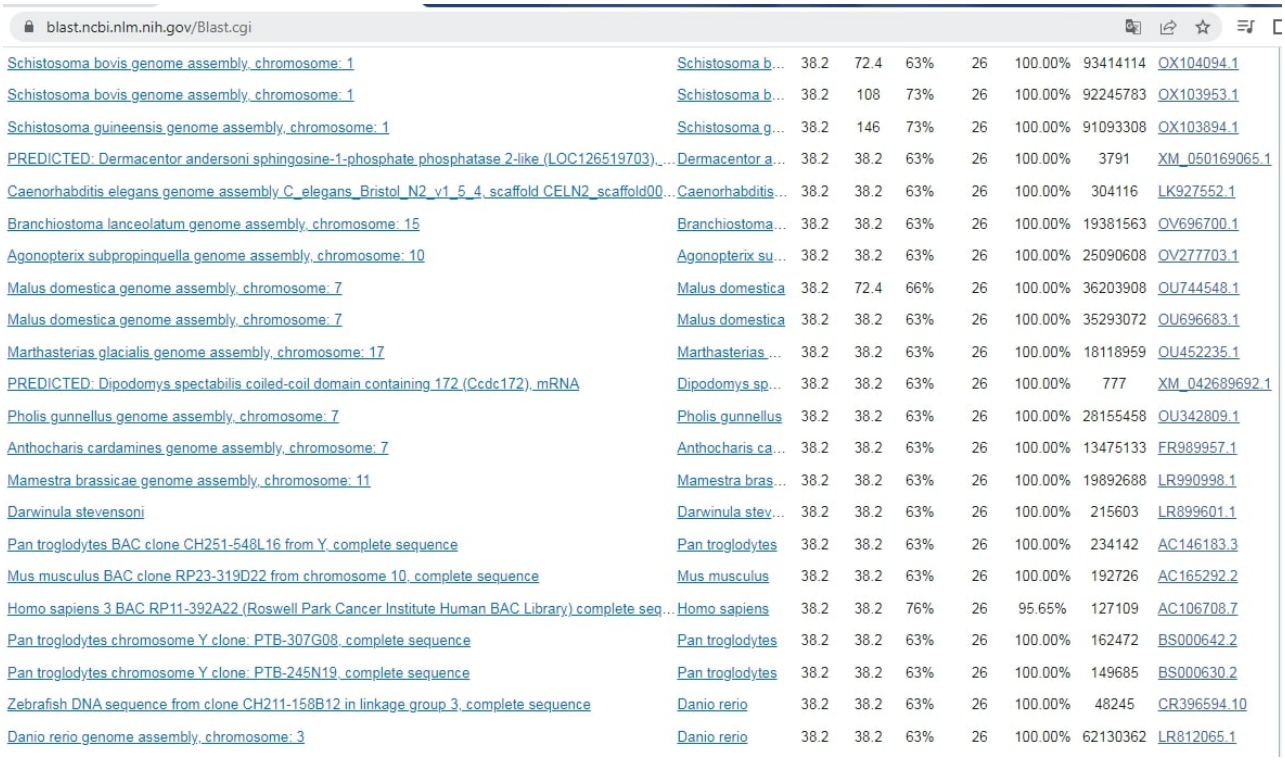
Figure 3. The NCBI gene bank for "Danio Aesculapi" [20].

A Universe is a population of galaxies joined by networks of *dark matter* and energy. In a Universe of ∞ scales—hence of Absolute Relativity—the i-number is relative to the limits of the perception of the observer that classifies them. We can also establish a relative i-scale to study Living Systems and the Human World.

Thus the main energy and 0-clocks of time of each scale for *physical and biological worlds* will be:

1st Scale: Open strings of energy and closed time strings: Strong Forces & Gravitational space-time.

2nd Scale: Bosons: Light and O-Photons.



blast.ncbi.nlm.nih.gov/Blast.cgi

Schistosoma bovis genome assembly, chromosome: 1	Schistosoma b...	38.2	72.4	63%	26	100.00%	93414114	OX104094.1
Schistosoma bovis genome assembly, chromosome: 1	Schistosoma b...	38.2	108	73%	26	100.00%	92245783	OX103953.1
Schistosoma guineensis genome assembly, chromosome: 1	Schistosoma g...	38.2	146	73%	26	100.00%	91093308	OX103894.1
PREDICTED: Dermacentor andersoni sphingosine-1-phosphate phosphatase 2-like (LOC126519703), ...	Dermacentor a...	38.2	38.2	63%	26	100.00%	3791	XM_050169065.1
Caenorhabditis elegans genome assembly C_elegans_Bristol_N2_v1_5_4, scaffold CELN2_scaffold00...	Caenorhabditis...	38.2	38.2	63%	26	100.00%	304116	LK927552.1
Branchiostoma lanceolatum genome assembly, chromosome: 15	Branchiostoma...	38.2	38.2	63%	26	100.00%	19381563	OV696700.1
Agonopterix subpropinquella genome assembly, chromosome: 10	Agonopterix su...	38.2	38.2	63%	26	100.00%	25090608	OV277703.1
Malus domestica genome assembly, chromosome: 7	Malus domestica	38.2	72.4	66%	26	100.00%	36203908	OU744548.1
Malus domestica genome assembly, chromosome: 7	Malus domestica	38.2	38.2	63%	26	100.00%	35293072	OU696683.1
Marthasterias glacialis genome assembly, chromosome: 17	Marthasterias ...	38.2	38.2	63%	26	100.00%	18118959	OU452235.1
PREDICTED: Dipodomys spectabilis coiled-coil domain containing 172 (Ccdc172), mRNA	Dipodomys sp...	38.2	38.2	63%	26	100.00%	777	XM_042689692.1
Pholis gunnellus genome assembly, chromosome: 7	Pholis gunnellus	38.2	38.2	63%	26	100.00%	28155458	OU342809.1
Anthocharis cardamines genome assembly, chromosome: 7	Anthocharis ca...	38.2	38.2	63%	26	100.00%	13475133	FR989957.1
Mamestra brassicae genome assembly, chromosome: 11	Mamestra bras...	38.2	38.2	63%	26	100.00%	19892688	LR990998.1
Darwinula stevensoni	Darwinula stev...	38.2	38.2	63%	26	100.00%	215603	LR899601.1
Pan troglodytes BAC clone CH251-548L16 from Y, complete sequence	Pan troglodytes	38.2	38.2	63%	26	100.00%	234142	AC146183.3
Mus musculus BAC clone RP23-319D22 from chromosome 10, complete sequence	Mus musculus	38.2	38.2	63%	26	100.00%	192726	AC165292.2
Homo sapiens 3 BAC RP11-392A22 (Roswell Park Cancer Institute Human BAC Library) complete seq...	Homo sapiens	38.2	38.2	76%	26	95.65%	127109	AC106708.7
Pan troglodytes chromosome Y clone: PTB-307G08, complete sequence	Pan troglodytes	38.2	38.2	63%	26	100.00%	162472	BS000642.2
Pan troglodytes chromosome Y clone: PTB-245N19, complete sequence	Pan troglodytes	38.2	38.2	63%	26	100.00%	149685	BS000630.2
Zebrafish DNA sequence from clone CH211-158B12 in linkage group 3, complete sequence	Danio rerio	38.2	38.2	63%	26	100.00%	48245	CR396594.10
Danio rerio genome assembly, chromosome: 3	Danio rerio	38.2	38.2	63%	26	100.00%	62130362	LR812065.1

Figure 4. The NCBI taxonomy organism results [20].

Syngnathus acus (greater pipefish) [bony fishes]	▼Next	▲Previous	◀◀First
Syngnathus acus genome assembly, chromosome: 15	38.2	26	OX411231
Syngnathus acus genome assembly, chromosome: 15	38.2	26	LR594600
Sphinx pinastri [moths]	▼Next	▲Previous	◀◀First
Sphinx pinastri genome assembly, chromosome: Z	38.2	26	OX387614
Eudonia lacustrata [moths]	▼Next	▲Previous	◀◀First
Eudonia lacustrata genome assembly, chromosome: 16	38.2	26	OX387324
Eudonia lacustrata genome assembly, chromosome: Z	38.2	26	OX387339
Eudonia lacustrata genome assembly, chromosome: 8	38.2	26	OX387316
Biomphalaria glabrata [gastropods]	▼Next	▲Previous	◀◀First
Biomphalaria glabrata genome assembly, chromosome: 16	38.2	26	OX365788
Gossypium bickii [eudicots]	▼Next	▲Previous	◀◀First
Gossypium bickii isolate GPG1Iz chromosome 5	38.2	26	CP106721
Agrotis puta [moths]	▼Next	▲Previous	◀◀First
Agrotis puta genome assembly, chromosome: 30	38.2	26	OW964196
Schistosoma curassoni [flatworms]	▼Next	▲Previous	◀◀First
Schistosoma curassoni genome assembly, chromosome: 1	38.2	26	OX104140
Schistosoma bovis [flatworms]	▼Next	▲Previous	◀◀First
Schistosoma bovis genome assembly, chromosome: 1	38.2	26	OX104094

ncbi.nlm.nih.gov/Blast.cgi#orgPrv_1100991

Figure 5. The NCBI gene search results [20].

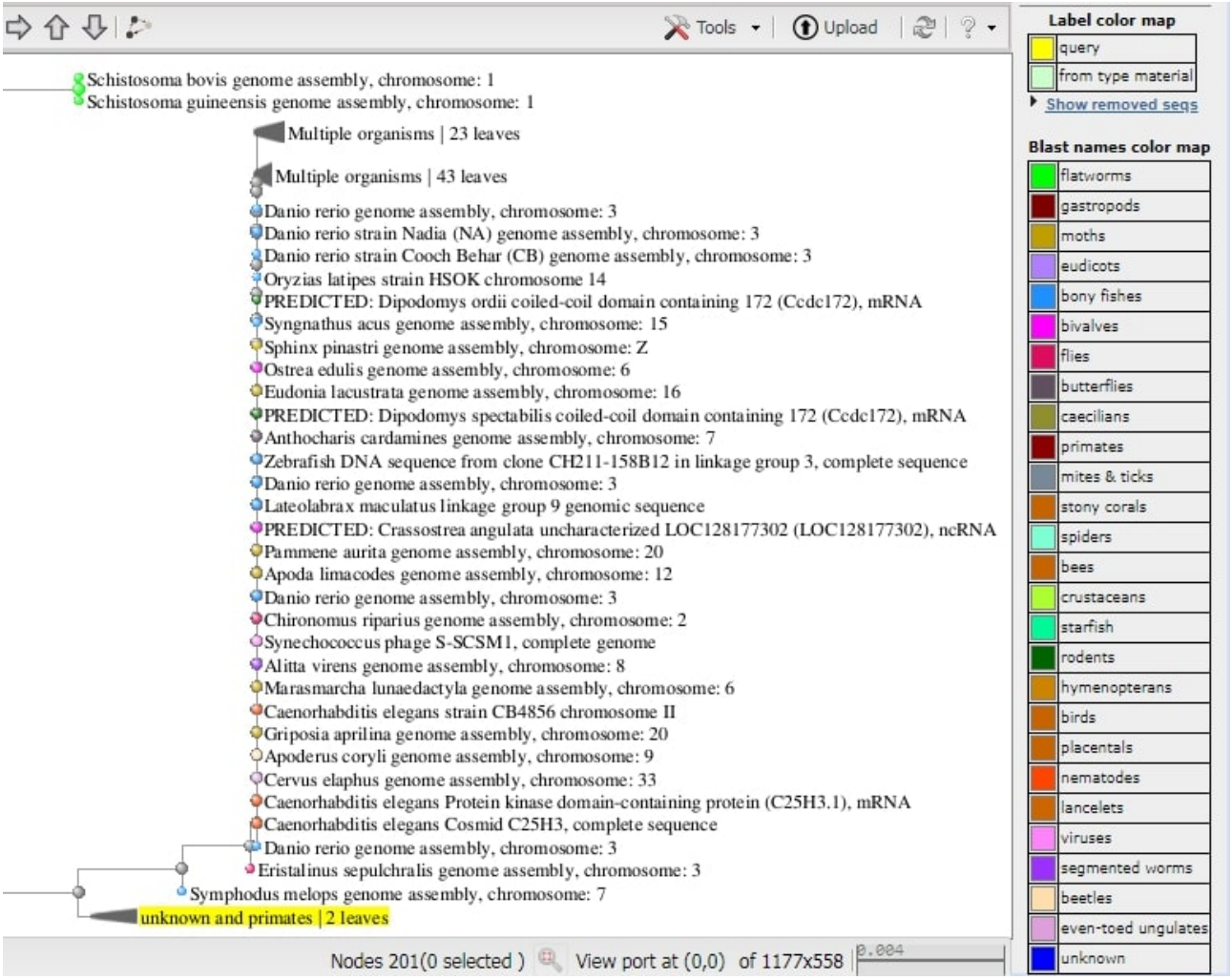


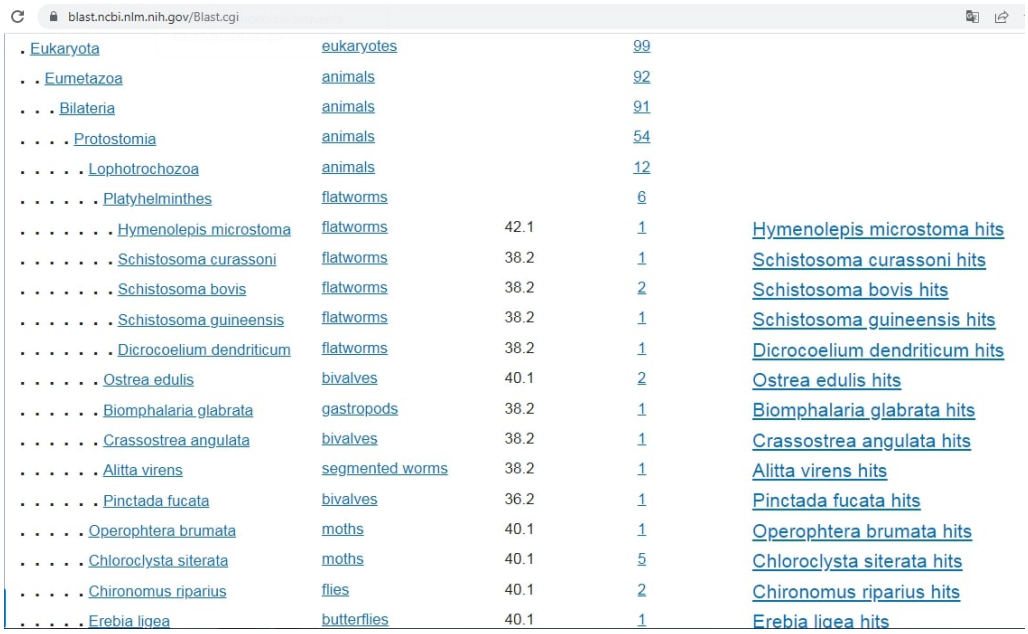
Figure 6. The NCBI gene search results [20].

Chironomus riparius [flies]	▼Next	▲Previous	⏮First
Chironomus riparius genome assembly, chromosome: 4	40.1	6.6	OU895880
Chironomus riparius genome assembly, chromosome: 2	38.2	26	OU895878
Erebia ligea (Arran brown butterfly) [butterflies]	▼Next	▲Previous	⏮First
Erebia ligea genome assembly, chromosome: 12	40.1	6.6	OU785231
Pholis gunnellus (rock gunnel) [bony fishes]	▼Next	▲Previous	⏮First
Pholis gunnellus genome assembly, chromosome: 3	40.1	6.6	OU342805
Pholis gunnellus genome assembly, chromosome: 7	38.2	26	OU342809
Danio aesculapii [bony fishes]	▼Next	▲Previous	⏮First
Danio aesculapii genome assembly, chromosome: 16	38.2	26	LR812499
Geotrypetes seraphini [caecilians]	▼Next	▲Previous	⏮First
Geotrypetes seraphini genome assembly, chromosome: 14	38.2	26	LR699159
Gadus morhua (Atlantic cod) [bony fishes]	▼Next	▲Previous	⏮First
PREDICTED: Gadus morhua uncharacterized LOC115549072 (LOC115549072), ncRNA	38.2	26	XR_003977692
Gadus morhua genome assembly, chromosome: 8	38.2	26	LR633950
Dipodomys ordii (Ord's kangaroo rat) [rodents]	▼Next	▲Previous	⏮First
PREDICTED: Dipodomys ordii coiled-coil domain containing 172 (Ccdc172), mRNA	38.2	26	XM_013017708

Figure 7. The NCBI gene search results [20].

Pan troglodytes (chimpanzee) [primates]	▼Next	▲Previous	◀First
Pan troglodytes BAC clone CH251-548L16 from Y, complete sequence	38.2	26	AC146183
Pan troglodytes chromosome Y clone: PTB-307G08, complete sequence	38.2	26	BS000642
Pan troglodytes chromosome Y clone: PTB-245N19, complete sequence	38.2	26	BS000630
Mus musculus (house mouse) [rodents]	▼Next	▲Previous	◀First
Mus musculus BAC clone RP23-319D22 from chromosome 10, complete sequence	38.2	26	AC165292
Mus musculus BAC clone RP24-257N2 from chromosome 10, complete sequence	38.2	26	AC144800
Homo sapiens (human) [primates]	▼Next	▲Previous	◀First
Homo sapiens 3 BAC RP11-392A22 (Roswell Park Cancer Institute Human BAC Library) complete sequence	38.2	26	AC106708
Danio rerio (zebrafish) [bony fishes]	▼Next	▲Previous	◀First
Zebrafish DNA sequence from clone CH211-158B12 in linkage group 3, complete sequence	38.2	26	CR396594
Danio rerio genome assembly, chromosome: 3	38.2	26	LR812065
Danio rerio genome assembly, chromosome: 3	38.2	26	OX063292
Danio rerio strain T5D chromosome 3	38.2	26	CP068737
Danio rerio genome assembly, chromosome: 3	38.2	26	LR812040
Danio rerio genome assembly, chromosome: 3	38.2	26	LR812596
Danio rerio strain Nadia (NA) genome assembly, chromosome: 3	38.2	26	LR812571
Danio rerio strain Cooch Behar (CB) genome assembly, chromosome: 3	38.2	26	LR812546
Lateolabrax maculatus (spotted sea bass) [bony fishes]	▼Next	▲Previous	◀First
Lateolabrax maculatus linkage group 9 genomic sequence	38.2	26	CP032606

Figure 8. The NCBI gene search results [20].



. Eukaryota	eukaryotes		99	
. . Eumetazoa	animals		92	
. . . Bilateria	animals		91	
. . . . Protostomia	animals		54	
. . . . . Lophotrochozoa	animals		12	
. . . . . Platyhelminthes	flatworms		6	
. . . . . Hymenolepis microstoma	flatworms	42.1	1	Hymenolepis microstoma hits
. . . . . Schistosoma curassoni	flatworms	38.2	1	Schistosoma curassoni hits
. . . . . Schistosoma bovis	flatworms	38.2	2	Schistosoma bovis hits
. . . . . Schistosoma guineensis	flatworms	38.2	1	Schistosoma guineensis hits
. . . . . Dicrocoelium dendriticum	flatworms	38.2	1	Dicrocoelium dendriticum hits
. . . . . Ostrea edulis	bivalves	40.1	2	Ostrea edulis hits
. . . . . Biomphalaria glabrata	gastropods	38.2	1	Biomphalaria glabrata hits
. . . . . Crassostrea angulata	bivalves	38.2	1	Crassostrea angulata hits
. . . . . Alitta virens	segmented worms	38.2	1	Alitta virens hits
. . . . . Pinctada fucata	bivalves	36.2	1	Pinctada fucata hits
. . . . . Operophtera brumata	moths	40.1	1	Operophtera brumata hits
. . . . . Chloroclysta siterata	moths	40.1	5	Chloroclysta siterata hits
. . . . . Chironomus riparius	flies	40.1	2	Chironomus riparius hits
. . . . . Erebia ligea	butterflies	40.1	1	Erebia ligea hits

Figure 9. The NCBI taxonomy report search results [20].

3rd Scale: Fermions: Electrons & O-quarks.

4th Scale: Atomic Organisms: Periodic Table.

5th Scale: Inorganic and Organic Molecules

6th Scale; Life Cells. States of Mater: Energetic Gas, Ex Liquid and Informative Solids.

7th Scale. Life organisms; Energetic Plants; Informative Animals. Organic Metal-Machines.

8th Scale: Planets. Human Civilizations; Economic Systems, Stars & O-Black holes.

9th Scale: Galaxies, which might be the beginning of a new Scalar Game.

10th Scale: Universe, which might be a Gas cloud of Atoms of the new Scalar game [24].

Dicycla oo genome assembly, chromosome: 23	36.2	103	OX411732
Tinea pellionella (casemaking clothes moth) [moths]	▼Next ▲Previous ⏮First		
Tinea pellionella genome assembly, chromosome: 5	36.2	103	OX411249
Tortricodes alternella [moths]	▼Next ▲Previous ⏮First		
Tortricodes alternella genome assembly, chromosome: 2	36.2	103	OX401969
Lactuca sativa [eudicots]	▼Next ▲Previous ⏮First		
PREDICTED: Lactuca sativa receptor-like protein EIX2 (LOC111890145), mRNA	36.2	103	XM_023886298
Blastomussa wellsi [stony corals]	▼Next ▲Previous ⏮First		
Blastomussa wellsi genome assembly, chromosome: 4	36.2	103	OX393564
Pinctada fucata [bivalves]	▼Next ▲Previous ⏮First		
Pinctada fucata DNA, chromosome 12, nearly complete sequence, Alternate Pseudohaplotype	36.2	103	AP027127
Coelioxys conoideus [bees]	▼Next ▲Previous ⏮First		
Coelioxys conoideus genome assembly, chromosome: 2	36.2	103	OX392450
Archips crataeganus [moths]	▼Next ▲Previous ⏮First		
Archips crataeganus genome assembly, chromosome: 2	36.2	103	OX402048
Symphodus melops (corkwing wrasse) [bony fishes]	▼Next ▲Previous ⏮First		
Symphodus melops genome assembly, chromosome: 7	36.2	103	OX393531
Apotomis capreana [moths]	▼Next ▲Previous ⏮First		
Apotomis capreana genome assembly, chromosome: 15	36.2	103	OX392513

Figure 10. The NCBI taxonomy report search results [20].

. . Branchiostoma lanceolatum	lancelets	38.2	1	Branchiostoma lanceolatum hits
. . Marthasterias glacialis	starfish	38.2	1	Marthasterias glacialis hits
. . Dipodomys spectabilis	rodents	38.2	1	Dipodomys spectabilis hits
. . Pan troglodytes	primates	38.2	3	Pan troglodytes hits
. . Mus musculus	rodents	38.2	2	Mus musculus hits
. . Homo sapiens	primates	38.2	1	Homo sapiens hits
. . Danio rerio	bony fishes	38.2	8	Danio rerio hits
. . Lateolabrax maculatus	bony fishes	38.2	1	Lateolabrax maculatus hits
. . Argyrosomus regius	bony fishes	38.2	1	Argyrosomus regius hits
. . Cervus elaphus	even-toed ungulates	38.2	1	Cervus elaphus hits
. . Caprimulgus europaeus	birds	38.2	1	Caprimulgus europaeus hits
. . Loxodonta africana	placentals	38.2	1	Loxodonta africana hits
. . Symphodus melops	bony fishes	36.2	1	Symphodus melops hits
. Blastomussa wellsi	stony corals	36.2	1	Blastomussa wellsi hits
Gossypium bickii	eudicots	38.2	1	Gossypium bickii hits
Malus domestica	eudicots	38.2	2	Malus domestica hits
Arachis hypogaea	eudicots	38.2	1	Arachis hypogaea hits
Ailanthus altissimus	eudicots	38.2	1	Ailanthus altissimus hits
Impatiens glandulifera	eudicots	38.2	1	Impatiens glandulifera hits
Lactuca sativa	eudicots	36.2	1	Lactuca sativa hits

Figure 11. The NCBi taxonomy report search results [20].

. . Sphinx pinastri	moths	38.2	1	Sphinx pinastri hits
. . Eudonia lacustrata	moths	38.2	3	Eudonia lacustrata hits
. . Agrotis puta	moths	38.2	1	Agrotis puta hits
. . Dermacentor andersoni	mites & ticks	38.2	1	Dermacentor andersoni hits
. . Caenorhabditis elegans	nematodes	38.2	5	Caenorhabditis elegans hits
. . Agonopterix subpropinquella	moths	38.2	1	Agonopterix subpropinquella hits
. . Anthocharis cardamines	butterflies	38.2	1	Anthocharis cardamines hits
. . Mamestra brassicae	moths	38.2	1	Mamestra brassicae hits
. . Darwinula stevensoni	crustaceans	38.2	1	Darwinula stevensoni hits
. . Monopis laevigella	moths	38.2	2	Monopis laevigella hits
. . Pammene aurita	moths	38.2	1	Pammene aurita hits
. . Nycteola revayana	moths	38.2	1	Nycteola revayana hits
. . Apoda limacodes	moths	38.2	1	Apoda limacodes hits
. . Eristalinus sepulchralis	flies	38.2	1	Eristalinus sepulchralis hits
. . Marasmarcha lunaedactyla	moths	38.2	1	Marasmarcha lunaedactyla hits
. . Griposia aprilina	moths	38.2	1	Griposia aprilina hits
. . Tenthredo notha	hymenopterans	38.2	1	Tenthredo notha hits
. . Parasteatoda tepidariorum	spiders	38.2	1	Parasteatoda tepidariorum hits
. . Apoderus coryli	beetles	38.2	1	Apoderus coryli hits

Figure 12. The NCBI taxonomy report search results [20].

. . Acleris cristana	moths	36.2	1	Acleris cristana hits
. . Dicycla oo	moths	36.2	1	Dicycla oo hits
. . Tinea pellionella	moths	36.2	1	Tinea pellionella hits
. . Tortricodes alternella	moths	36.2	1	Tortricodes alternella hits
. . Coelioxys conoideus	bees	36.2	1	Coelioxys conoideus hits
. . Archips crataeganus	moths	36.2	1	Archips crataeganus hits
. . Apotomis capreana	moths	36.2	1	Apotomis capreana hits
. Oryzias latipes	bony fishes	40.1	5	Oryzias latipes hits
. Pholis gunnellus	bony fishes	40.1	2	Pholis gunnellus hits
. Danio aesculapii	bony fishes	38.2	1	Danio aesculapii hits
. Geotrypetes seraphini	caecilians	38.2	1	Geotrypetes seraphini hits
. Gadus morhua	bony fishes	38.2	2	Gadus morhua hits
. Dipodomys ordii	rodents	38.2	1	Dipodomys ordii hits
. Syngnathus acus	bony fishes	38.2	2	Syngnathus acus hits
. Branchiostoma lanceolatum	lancelets	38.2	1	Branchiostoma lanceolatum hits
. Marthasterias glacialis	starfish	38.2	1	Marthasterias glacialis hits
. Dipodomys spectabilis	rodents	38.2	1	Dipodomys spectabilis hits
. Pan troglodytes	primates	38.2	3	Pan troglodytes hits
. Mus musculus	rodents	38.2	2	Mus musculus hits

Figure 13. The NCBI taxonomy report search results [20].

The Life-Death Cycle is very important for *evolutionary* development. A glimpse to the birth and death phases/ages of the *existential cycle*. The physicists ignore the *black hole paradox* so they don't understand that protons, neutrons and all other particles do not live eternally. On the contrary their life/death cycle is their complementary cycle between informative states and energetic states, either the clock of particle/wave complimentarily or the clock of *particle/antiparticle, past to future and future to past cycles*. If considering time as a *fourth dimension*, then what can be the next *fifth dimension*? As a result, this is a new paradigm. Can fifth dimension consist of imaginary numbers? *A new paradigm* changes

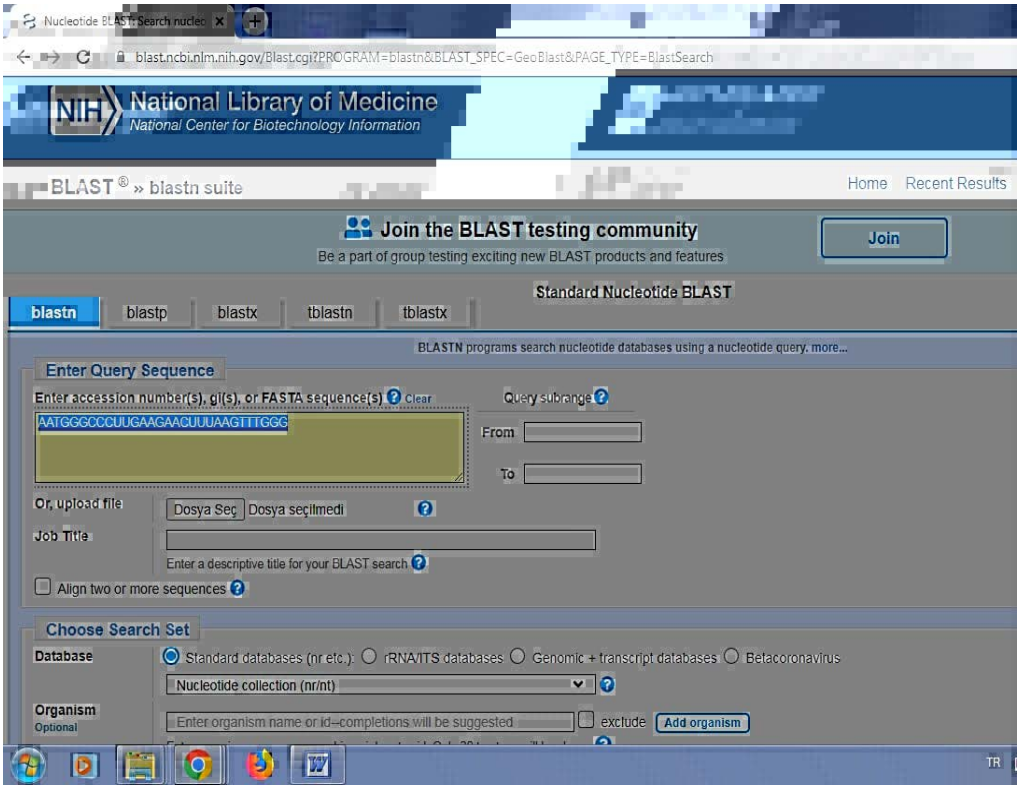


Figure 14. The NCBI data search screen for "*AATGGGCCCUUGAAGAACUUUAAGTTTGGG*" nucleotide bases [20].

our view of the Universe. This paradigm will define all the *life and death cycles* of change of form of the Universe. There are two arrows of time, *two* possible modes of change towards the future: the arrow of entropy, which is the only one understood by physicists, which increases motion. (Remember, the binary number system consists of two numbers, "0" and "1", as in the binary unmeasured case in the superposition principle.) The arrow of information, which increases form, the arrow of biology and evolution. And this *duality* is also essential to expand our understanding of the Universe. Limits of physics in its study of time, as a single, lineal clock: the ∞ space times of the Universe. Because of such limited definition of time as "what a clock measures" and only as change in motion, the *fourth dimension paradigm* does not allow to study all the phenomena related to *time*. Things like evolution or history that happens in time cannot be understood with Relativity. The form of beings: biological time, as in evolution or in the life/death *cycle* or a change in the motion of beings: physical time, measured by clocks as in Galileo's formula: V = s/t. So time as change studies together all time related changes in all disciplines from Biology to Physics. In physics the instrument physicists use to measure time, a clock, becomes essential to model all times changes similar to the clock's rotational frequency, a "*cyclical geometry*" of space. Time becomes synonymous with circular space and the Universe [25].

Why do we evaluate the modules and argument of imaginary numbers? Com-

plex numbers are used to model real world phenomena as it relates to electricity and generate interesting patterns. The mathematics used in Electrical Engineering to add together resistances, currents or DC voltages used what are called "real numbers" used as either integers or as fractions. But real numbers are not the only kind of numbers using especially when dealing with frequency dependent *sinusoidal* sources and vectors. In addition to using normal or real numbers, complex numbers were introduced to allow solving complex equations with numbers with the square root of negative numbers ($\sqrt{-1}$); the system of complex numbers is based on the so-called imaginary unit. It is equal to the square root of minus one. In electrical engineering, this type of number is called an "imaginary number" and distinguishes an imaginary number from a real number the letter "j" known commonly in electrical engineering. A complex number then consists of two different but much related parts, a "real number" plus an "imaginary number". Although people did not believe in the solution of $\sqrt{-1}$ for many years, today it is called the "imaginary number" [26].

When calculating Euler Identity and imaginary numbers, if "2π" is taken instead of "x", the result of this operation would be exactly like this: "$2i\pi = 0$" (*As to this in exponential numbers, only one number to the zero power is equal to one* "$e^{2i\pi} = 0$", so $e^{\circ} = 1$). Also, Euler's Identity doesn't just consist of cosine and sine formulas, quantum particles and imaginary numbers can also be expressed as waves and particles!

4. Conclusions

This paper tries to shed lights on the relationships between some constant numbers (please, see **Table 4**) just like as the imaginary number and nucleotide bases [Adenine (A), Thymine (T) Guanine (G), Cytosine (C) and Uracil (U)]. According to Quantum Perspective Model, the chemical formulas of nucleotide bases [Adenine (A), Thymine (T) Guanine (G), Cytosine (C) and Uracil (U)] consist of Carbon(C), Nitrogen (N), Oxygen (O) and Hydrogen (H). Carbon is the structural reproductive atom that shapes the body and forms the membranes of organic cells. In machines made of metal, atoms of silicon and gold are informative atoms that act as the brains of advanced robots; iron is structural atom, maximum the ionization energy that forms the "membrane" or body of the machine; copper and silver carry electrical energy that feeds the body/brain systems. (Remember gold and silicon are very good conductors for electricity) [25]. Complementary, organic molecules given their affinity, they give birth to more complex molecular systems and make up most of the molecules in the Universe. Maximum affinity occurs between atoms with relatively similar atomic, brain, weight, and orbital body form in the atomic table. There are three component regions in living organisms. One of them is the oxygen we breathe and the water component that fills the interstitial spaces of the cell. The second is Nitrogen, the informative atom found in excess in DNA and brain cells. As cellular beings, we are also defined by a language of repetitive information written in the DNA

foundations that make up the genetic code. In the simple molecules of life, Carbon, Oxygen and Nitrogen are the top predator central atoms that act as carriers of their relative energy and information, trapping and surrounding themselves with the weaker Hydrogen atoms that form the outer "membrane" of their molecular structure with the dominant atoms. *Nitrogen heads*, *carbon bodies and oxygen* energy make up the simplest living entities, amino acids. Even lineal proteins evolved according to the inverse laws of transcendental, social evolution, forming self-replicating hollow membranes with *cyclic*, stationary forms. Indeed, once the nucleotide, the third informative horizon of molecular life, *evolved*, the protein's simple brains short-lived its top predator status. The economist, sociologist and business guru A. Toffler, who defined humanity's transition from hunting-gathering to agriculture as the first wave, the industrial revolution as the second wave and the information revolution as the third wave. According to Alvin Toffler, those who first began agriculture dominated hunter-gatherers, and those who preceded industry dominated agrarian societies [27].

The most illuminating analysis of Multiple Space-Time is the objective evaluation of man, another fractal part of the Universe, in unity with his *cycles of existence and organic laws*: like all other living organisms, we humans have two energy poles and circular and linear form, body and head knowledge. Considering *man as a fractal organisms*; medicine and physiology deals with the sensory functions of the human organism, the three networks that activate our arrows of time: *Digestion*, *the Energy System* depend on the senses of smell and taste; hormonal, blood, reproductive system are connected to the senses of touch, and the 6*th emotional sense and Nervous*, *Information System* are connected to the higher senses of vision and sound. Humans are made of simple atoms closely related to nuclei C = 6, N = 7, O = 8, which follow the law of proximity in their electronic body orbits. All of these atoms are filled with sp orbital's, which together create complex complementary organisms based on *body-brain affinity.* Thus, the parallel electronic cover connects these atoms externally depending on the proximity of their orbits, forming the 4 structures of organic molecules. The affinity law also describes inorganic molecules and other metal energy and information structures. For example, machines made of metal are formed with atoms of similar nucleic number. On the other hand, atoms with different atomic weights associate in hierarchical structures in which the lighter atoms become enslaved by the others. For example, the macro-energetic proteins of life, Hemoglobin and Chlorophyll, have 2 central, dense atomic nuclei, Iron and Mg, which dominate lighter carbohydrate "arms", used to jail oxygens, the energy atoms of living beings [25]. As a result, there are cyclical systems based on not only atoms at the micro level, but also circular systems at scale for the physical and biological worlds at the macro level.

Cells are made of energetic amino acids found in their nuclei, *reproductive proteins that form membranes and informative nucleotides* (Remember, *Faraday*

constants [19] *can be expressed as the cocoon of the silkworm* (*Bombyx Mori*) [28]). Suffice it to say that in any active organism with more than one scale, in the *informative code*, in this case the genes of biological super-organisms encode multiple hierarchical levels of the organism, with the basic triple code forming their simplest scale (case of life, amino acids) [25].

Our perception of size is constantly changing over time. Initially, two-dimensional unknowns can be represented both as width and height, and as "0 and 1" in binary based system. In addition, if the binary number system is taken as "0" as death and life as "1", the death-life cyclical system can emerge. Also, the most complex nucleotide heads are Purines: binary, pentagonal, and hexagonal nitrogen rings are joined by a strong covalent C = C wall forming binary pairs called Adenine and Guanine, adding an external nitrogen antenna with two unknown Hydrogen eyes. Within this number system, is there an object which, when squared, gives −1? Yes. It is the pair (0, 1). When you square it using the above rule of multiplication, you get (0, 1)(0, 1) = ((0)(0) − (1)(1), (0)(1) + (1)(0)) = (−1, 0) (THE RESULT IS MINUS ONE'-1') [29]. Then three-dimensional unknowns (width, length and height) and time can be shown as the fourth dimension. But finally, can imaginary numbers be represented as the fourth dimension today? Because basically, the element set of imaginary numbers also consists of four basic numbers (1, −1, i, −i). One of the formulas of this basic set of numbers in mathematics is the formula where the fourth power of x is equal to the number "1" [$(x^2 - 1)(x^2 + 1) = 0$]. In fact, the expression of the Universal Genetic Code Table, which consists of triple writing of genetic codes, in the fourth dimension is expressed as "REVERSE" (please, see **Table 2**). Even, only the "reverse" process is not seen in genetic codes, there are shadows that can be counted as the fourth dimension, just like its *reflection in a mirror*. If you look at convergent or divergent mirrors at the same time, you can detect that the size of things can be seen in different dimensions in the mirror, which could indicate the illusions of the observer in Quantum Physics? Even normally single entities can give two or more images of these entities depending on the number of mirrors; can this point to the definition of superposition in Quantum Physics? "Is the imaginary number trying to mathematically model these unobservable aspects of Nature?" It may be asked. It is also worth mentioning there is an asymmetry in exponential rules, where $2^{-1} = 1/2$, while $2^1 = 2$ and $-2^{-1} = -1/2$ and $-2^1 = -2$. In other words, the asymmetry is found in several of the basic rules of mathematics. This article written by E.G. Haug and Pankaj Mani highlights an interesting asymmetry in the basic mathematical rules between positive and negative numbers. Also, by showing that an alternative numerical system exists, basically the same as today's system, but positive numbers outweigh negative numbers, It is trying to describe a system of the current number system, such as *mirror symmetry*. Asymmetry in both of these systems can lead to imaginary results and complex numbers. An alternative number system with fully symmetrical rules is also proposed. The superiority of negative numbers over positive num-

bers or vice versa, and even here imaginary and complex numbers is no longer needed. This number system seems to be superior to other numerical systems because it brings simplicity. Like this, and logic is returning to areas dominated by complex rules for much of the history of mathematics. It was also discussed how the Riemann hypothesis could be related to the asymmetry in the current number system. As with numbers in space-time and quantum mechanics, two hitherto obscure areas of physics. In order for such a number system in this mystery to be freed from phantasm, may need more to describe nature [30]. Imaginary numbers are defined by squaring a negative number that is not possible in the set of real numbers. Applying the quantum state of quantum particles in the unmeasured state, known as superposition, to a real number produces a complex number that exists in both positive and negative forms simultaneously, thus producing a negative real number quantity when squared. Imaginary numbers are defined by the result of squaring, which produces a negative number that is not possible in the set of real numbers. The application of the quantum state of quantum particles in an unmeasured state known as *superposition* to a real number produces a complex number that exists in both positive and negative forms simultaneously thus producing a negative real number quantity when squared. In sum, for these reasons, Euler's Identity has been applied in the expression of the imaginary number and the "REVERSE" operation has been applied in the expression of the genetic codes. "I seem to be the only scientist who thinks that time velocities are different in different parts of the universe," said Einstein, and eventually formulated this by this author in the systems science setting to make it useful for hard science with *new math and logic tools*. However, like all new paradigms of science, the current phase of fifth dimensional studies is limited to a few researchers and is being discussed by practitioners of the previous paradigm [25].

Initially, the expression of the imaginary number as nucleotide bases is "*AATGGGCCCUUGAAGAACUUUAAGTTTGGG*". Secondly, the NCBI results of the imaginary number are bony fish and flatworms and bees. Thirdly, not only are NCBI results of imaginary numbers bony fish (especially Danio Rerio and Danio Aesculapii), but also NCBI results of some irrational numbers are bony fish [20]. Fourthly, the NCBI resultant expression of Faraday constant numbers is silkworms (especially Bombyx Mori), which is also related to the electric membrane in terms of cocoons of silkworms [21]. (Remember, one of the NCBI blast results of the imaginary number are worms that evolve, which, like other circular systems, change from worm to butterfly). Fifthly, let alone the previous explanations, given the implications of this, some irrational numbers and some universal constants (see, **Table 4**) are both very important genetic models for many scientific studies. In fact, the bee's chromosomes do not change to the number "16" and the number "16" is also obtained from the *fourth power* of the two numbers ("16" = $2^2 \times 2^2$). Can the *fourth base* be also valid for bees? [31] "$(x^4 - 1^4) = (x^2 - 1)(x^2 + 1)$" Sixthly, not only Faraday's fixed numbers are elec-

trically related, imaginary numbers are electrically related as well. After ordering the Euler Identity's formula "$e^{xi} + 1 = 0$" using "2π" instead of "x", this important change is attributed not only to the link between the Faraday constants in Electrochemistry, but also to the link between the binary positions of the Superposition in Quantum Physics. Seventhly, the emergence of imaginary numbers from the Euler Identity [32] is very interesting, as both are associated with *sine waves.* One of research article reveals the sine value in Euler's formula and the relations of sine and cosine trigonometric functions with imaginary number [33]. Because "e^{xi}" has been reached for a variable that's integral and derivative are the same. So, given this information about "e^{xi}", the point (derivative) or area (integral) of this formula is the same as the other operation! Eighthly, whether there is actually a relationship between the imaginary number and the Mandelbrot set can be a further research topic in terms of fractals and Chaos Theory (Remember, K. Köklü also related pi numbers to Chaos Theory, too [3]). In summary, can these cyclical results and this new Quantum Perspective Model paradigm shed light on the interrelationships between sciences such as *Quantum Physics*, *Biology* [34] and Electrochemistry, and Mathematics? As for math, this solution could be a cornerstone for a new dimension. That is, the infinite series expression of some irrational numbers, such as golden ratio numbers, Euler numbers, and Pi numbers, can be a sign of a new dimension, including imaginary numbers. The common features of some irrational numbers have infinite sum ratios (E, Pi, Phi…etc) [35]. But some infinite series are indeed finite, there is a small problem for Taylor series that only works when $-1 < x < 1$. (Remember, the solution set of imaginary numbers is also in the range of minus one to plus one) [36]. In conclusion, *if time is treated as the fourth dimension, could the fifth dimension be imaginary numbers*? So, these results may shed light on the *new paradigm* of science! That is, the interrelationships of the Sciences?

Conflicts of Interest

The author declares no conflicts of interest.

References

[1] Köklü, K. (2019) Is Relativity Theory Also Valid in Biogenetics and Mathematics? *NeuroQuantology*, **17**, 53-58. https://doi.org/10.14704/nq.2019.17.3.1999

[2] Ölmez, T. (2022) Is There Any Meaning of Planck's Constant Numbers as Regards to Quantum Superposition via the Chemical Atomic Masses of Nucleotide Bases? *Open Access Library Journal*, **9**, e9482. https://doi.org/10.4236/oalib.1109482

[3] Köklü, K. (2019) A Quantum Perspective Model to Genetic Codes through Various Sciences. *Neuroquantology*, **17**, 15-18. https://doi.org/10.14704/nq.2019.17.3.1974

[4] Ölmez, T. (2022) Is There Any Explanation for the Chemical Atomic Weights of Protons, Neutrons and Electrons through the Genetic Codes Attributed to Quantum Superposition? *Open Access Library Journal*, **9**, e9650. https://doi.org/10.4236/oalib.1109650

[5] Ölmez, T. (2023) Can the Boltzmann and Bohr Magneton Constants Be Expressed

as Nucleotide Bases via Quantum Superposition? *Open Access Library Journal*, **10**, e9653. https://doi.org/10.4236/oalib.1109653

[6] Willems, J.L. (2007) Active Current, Reactive Current, Kirchhoff's Laws and Tellegen's Theorem. *Electrical Power Quality and Utilisation Journal*, **13**, 5-8. https://core.ac.uk/download/pdf/55793649.pdf https://www.researchgate.net/publication/294124832

[7] Wieser, E.M., Holden, N., Coplen, B.T., *et al.* (2013) Atomic Weights of the Elements 2011. *Pure and Application Chemistry*, **85**, 1047-1078. https://doi.org/10.1351/PAC-REP-13-03-02

[8] Ölmez, T. (2021) According to Quantum Perspective Model, Are the Numbers of Pi Also Meaningful in Biochemistry? *International Journal of Natural Sciences*: *Current and Future Research Trends*, **11**, 1-10.

[9] Ölmez, T. (2020) Is There an Aesthetics in Golden Ratio as Regards to the Common Cis-Regulatory Elements versus to Atomic Numbers of Elements with Respect to Quantum Perspective Model? *Neurology and Neuroscience Reports*, **3**, 1-4. https://doi.org/10.15761/NNR.1000119

[10] Ölmez, T. (2020) With Respect to Quantum Perspective Model, Can Euler Numbers Be Related to Biochemistry? *Global Journal of Science Frontier Research*, **20**, 7-14. https://doi.org/10.34257/GJSFRFVOL20IS9PG7

[11] Ölmez, T. (2021) According to the Binary Number Base System, Are the Square Roots of Two Numbers also Significant in Biochemistry? *Open Access Library Journal*, **8**, e7122. https://doi.org/10.4236/oalib.1107122

[12] Ölmez, T. (2021) What Is the Meaning of the Square Root of the Number Three in Biochemistry? *Open Access Library Journal*, **8**, e7123. https://doi.org/10.4236/oalib.1107123

[13] Ölmez, T. (2021) Can Irrational Numbers (Such as Square Root of the Number Five) Be Reached by Analysis of Genetic Sequences? *Open Access Library Journal*, **8**, e7104. https://doi.org/10.4236/oalib.1107104

[14] Ölmez, T. (2022) Are Irrational Numbers (Like the Square Root of the Number Seven) Applicable to Genetic Sequences? *Open Access Library Journal*, **9**, e8513. https://doi.org/10.4236/oalib.1108513

[15] Ölmez, T. (2022) Can the Irrationality in Mathematics Be Explained by Genetic Codes Expressed in the Square Root of the Number Ten? In: Ferreira, M.A.M., Ed., *Novel Research Aspects in Mathematical and Computer Science*, Vol. 4, BP International Press, London, 17-25. https://doi.org/10.9734/bpi/nramcs/v4/2120B

[16] Ölmez, T. (2021) Is There a Similarity between Fibonacci Sequence and Euler's Number with Respect to Quantum Perspective Model? *Global Journal of Science Frontier Research*, **20**, 35-39.

[17] Ölmez, T. (2021) According to Quantum Perspective Model, Is Euler's Identity Also Meaningful in Biochemistry? *International Journal of Natural Sciences*: *Current and Future Research Trends*, **9**, 23-28. https://ijnscfrtjournal.isrra.org/index.php/Natural_Sciences_Journal/article/view/1037/15

[18] Ölmez, T. (2023) Can The Golden Ratio Numbers In Biochemistry And Mathematics Have A Common Explanation With Nucleotide Bases? *Open Access Library Journal*, **10**, e9716. https://doi.org/10.4236/oalib.1109716

[19] Ölmez, T. (2023) What Is the Relationship between the Faraday's Constant Numbers and Silk Worms as Regards to Quantum Perspective Model? *Open Access Library Journal*, **10**, e732.

[20] Basic Local Alignment Search Tool. https://blast.ncbi.nlm.nih.gov/Blast.cgi

[21] *Bombyx mori*. Wikipedia. https://en.m.wikipedia.org/wiki/Bombyx_mori

[22] Tulachan, B., Meena, S., Rai, R., *et al.* (2014) Electricity from the Silk Cocoon Membrane. *Scientific Reports*, **4**, Article No. 5434. https://doi.org/10.1038/srep05434

[23] Zhang, P., Wu, Y.-H., Sun, H.-R., Zhao, J.-Q., Cheng, Z.-M. and Kang, X.-H. (2021) MnO_2/Carbon Nanocomposite Based on Silkworm Excrement for High-Performance Supercapacitors. *International Journal of Minerals, Metallurgy and Materials*, **28**, 1735-1744. https://doi.org/10.1007/s12613-021-2272-8

[24] Stop Codon. Wikipedia. https://en.wikipedia.org/wiki/Stop_codon

[25] Sancho, L. The 5th Dimension: A Theory of Multiple Spaces & Times. 279-581. https://vixra.org/pdf/1401.0052v1.pdf

[26] da Fontoura Costa, L. (2021) Complex Numbers: Real Applications of an Imaginary Concept (CDT-56). Sao Carlos Institute of Physics, São Paulo, 1-10. https://www.researchgate.net/publication/349947136 https://www.researchgate.net/publication/349947136_Complex_Numbers_Real_Applications_of_an_Imaginary_Concept_CDT-56

[27] Toffler, A. (1980) The Third Wave. William Morrow and Company, New York, 35-461.

[28] Faraday Constant. Wikipedia. https://en.wikipedia.org/wiki/Faraday_constant

[29] Answers and Explanations. University of Toronto Mathematics Network. https://www.math.toronto.edu/mathnet/answers/imagexist.html

[30] Haug, E.G. and Mani, P. (2019) Are Imaginary Numbers Rooted in an Asymmetric Number System? The Alternative Is a Symmetric Number System! https://www.researchgate.net/publication/337029494

[31] Bee. Wikipedia. https://en.wikipedia.org/wiki/Bee

[32] Euler's Identity. Wikipedia. https://en.wikipedia.org/wiki/Euler%27s_identity

[33] Vlajić, S. (2016) Presentation of Euler's Formula Using the Imaginary Number. University of Belgrade, Beograd. https://www.researchgate.net/publication/303839329

[34] Lodish, H., Berk, A., Zipursky, S.L., Matsudaira, P., Baltimore, D. and Darnell. J. (2018) Molecular Cell Biology. 6th Edition, Translated by Geçkil, H., Özmen, M. and Yeşilada, Ö., Palme Publishing, New York, 294-302.

[35] Geometric Series. Wikipedia. https://en.wikipedia.org/wiki/Geometric_series

[36] Gedzelman, S.D. (2013) Calculus: Your Royal Road to Genius. Stanley David Gedzelman Books, New York, 107-118.