

**Child of Qbit in time**  
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**Abstract:**

The *Giving first Taking later* is the KoGuan Quantum InfoDynamics (KQID) *DAO-LOVE Principle* of Creation and Distribution of Existence. From it comes KQID Ouroboros Equations of Creation and Distribution that produces and reproduces Existence:

$$\equiv 00 \equiv \langle \bar{S} | \bar{E} | \bar{A} \rangle = \Psi \tau (iL_{x,y,z}, L_m) = Kb\theta \ln 2 = hf = pc + mc^2 = p^2/2m + U(iL_{x,y,z}) = 4\pi G\rho - K_{qid} (A\theta - \theta_s) g_{\mu\nu} = (8\pi G/c^4) T_{\mu\nu} - K_{qid} (A\theta - \theta_s) g_{\mu\nu} = \dot{T}_{\mu\nu} = \dot{E} = \dot{A} + \dot{S} \subseteq \dot{T}$$

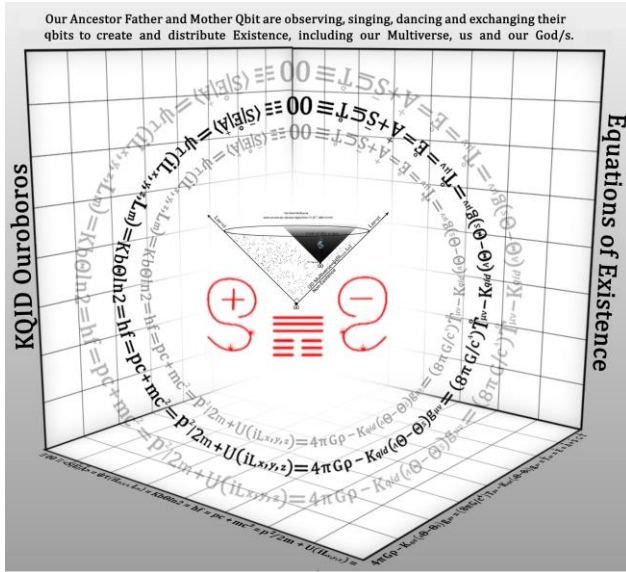


Diagram 1

The KQID story begins when our Ancestor FAPAMA Father and Mother Qbit emerges from Non-existence. They fall in love. Fortunately and naturally, as the Diagram 1 shows they have been observing, singing, dancing and exchanging their qbits with one another ever since every absolute digital time  $T \leq 10^{-1000}$  seconds. As a result, the wave function  $\Psi$  of Existence(Qbit) collapses and Existence exists including us, Children of Qbit, our God/s and Multiverse. When they are not observing, singing, dancing and exchanging information, they are in quantum superposition (00) every absolute Digital time  $T \leq 10^{-1000}$  seconds.

**One Wang Yaming's bit**

Fu Xi heaven triagram ☰ as the element that are creative, innovative and proactive forces that gives A bits first, whereas the earth triagram ☷ as the element that are receptive, flowing and reactive forces that takes and converts A into S bits later to complete a cycle. The ☰ is doing the first Giving and the ☷ is doing the first

Taking: Existence emerges. The act of Giving is the beginning of the Taking and the act of Taking is completing the Giving. The Giving first and Taking later principle is the unity of Wang Yangming's one bit. This is the KQID simple mechanism of Creation and Distribution.

**In a nutshell:**

Our Multiverse has one Feynman sum-over-histories caused by one information flow of gradient space-in-time obeying the Third Law of Multiverse of "Giving first Taking later" bit-wave equation  $A = E - S \subseteq T$ , maximizing the flow of A, anti-entropic time-future bit-wave, minimizing the flow of S, entropic time-past bit-wave, and optimizing the flow of E, energetic time-present bit-wave. (Diagram 2)

KQID Ouroboros Equations of Existence

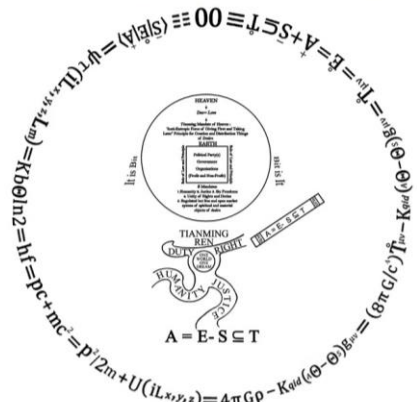


Diagram 2

**KQID theory**

KQID combines Newton, Maxwell, Einstein and QM to form a simple unified theory that the whole contains the part and the part contains the whole. KQID describes our reality as deeply paradoxical in nature: **fiction but real**. It pictures truly shocking reality: Existence is a realtime hologram digitally projected from a single source of one and only non-local singularity Qbit. This Qbit computes all inputs of their possibilities and potentialities and projects outputs externally as our options to choose and collapse the  $\Psi$  using Wheeler's series of a yes and a no questions and answers: we are live holograms.

Bizarrely, these Susskind hologram qbits are actually living inside that Qbit as Plato *Forms* in our Multiverse timeline  $L_m(ct)$  but we as the

projected holograms as Plato *Copies* in our  $iL_{x,y,z}$  world are interactively exchanging our holograms with other holograms while we are creating and distributing our own holograms. My fellow Tianming holograms: no more wars but let's play, fall in love and rock and roll with joy. Let's sing and praise Xuan Yuan's Da Tong.

**KQID thesis:**

**1a.** Our Ancestor FAPAMA Qbit is Planck's *matrix of all matter*: KQID adopts Planck's postulation that there is the conscious and intelligent mind behinds Existence. Planck (1858-1947): "*We must assume...a conscious and intelligent mind. This mind is the matrix of all matter.*"<sup>1</sup>

**1b.** Our Ancestor FAPAMA Qbit is the *infinite Qbit* that generates qbits that do works by observing, singing, dancing and exchanging qbits between our Ancestor Father and Mother Qbit that project those newly minted qbits onto the event horizon  $L_m$  that in turns projects these qbits instantaneously into the bulk  $iL_{x,y,z}$  world. KQID adopts Maxwell's demon idea but this demon is the *infinite being* with infinite memory that stores all qbits, not Maxwell's *finite being* that picks fast moving molecules into one chamber and slow ones into another. As this finite being has a limited memory capacity, it eventually erases its bits to store new bits.<sup>2</sup> This finite being, per Landauer's principle, generates heat in its operation; the Second Law  $\Delta S \geq 0$  prevails. In contrast, the infinite Qbit as the matrix of all matter creates and distributes Existence in the absolute zero temperature singularity  $\langle S|E|A \rangle$ . It produces no entropy ( $\Delta S = 0$ ) and yet obeying the second law  $\Delta S \geq 0$ . Because, if just one bit is erased,  $\Delta S > 0$ , this operation collapses our Existence back to its original state, the state of non-existence. This heat will cause the temperature of the event horizon of Existence to be greater than zero when  $\Delta S > 0$ , no matter how small it is;  $\Delta S$  destroys Existence. For Existence to exist forever, the Qbit must necessarily be the infinite Qbit( $E=hf$ ) as  $f$  as frequency can go up to infinity with unlimited storage capacity to keep all newly minted bits within. No information was, is and will be deleted period! The crucial discovery by the great Landauer (1961) is that he proved the act of measurements or the act of our happy go lucky Father and Mother Qbit singing, dancing and exchanging qbits in the absolute zero in the singularity Qbit do **not** incur entropic cost. But if the Qbit deletes or resets a bit from **1 to -1**, it dissipates energy at least  $Kb\Theta \ln 2$ , where  $Kb$  is Boltzmann's constant,  $\Theta$  is temperature and  $\ln 2$  is log based 2.<sup>3</sup>

**2. Digital Multiverse**

The relationship between digital bits and our world of matter has been established far longer than the relationship between energy and mass by Einstein in 1905. More than 5 thousand years ago, Fu Xi defined the relationships between digital information and objects using 8 trigrams ( $\equiv \equiv \equiv \equiv \equiv \equiv \equiv \equiv$ ),<sup>4</sup> Thus Fu Xi formulated the earliest digital world idea that these 8 trigram bits are directly representing Existence and lives in the real world. Similarly, more than 2500 years ago, Pythagoras boldly declared: "*All things are numbers*". Since numbers are bits by their nature, thus, he proclaimed that everything is in bits. Later in 19th century, Maxwell shocked his colleagues by proposing a "finite being" who picked fast and slow moving particles into two separate chambers respectively to create free energy. Finally, "information is physical", said Landauer. Entropic heat a bit  $\geq Kb\Theta \ln 2$  must be generated, when it is erased.

Thus, bits are physical and matter are bits. In short, bit is it and it is bit. These relationships were verified in 2010 by Japanese S. Toyabe et al, and later by European scientists Berut et al that information and energy are equivalent: 1 bit  $\geq Kb\Theta \ln 2 \sim 3.10^{-21} J/K$  at  $\Theta = 298.15 K$ .<sup>5</sup>

Our Ancestor FAPAMA Qbit (**00, +1, -1**) is physical; Existence is physical. FA is the law of nature that governs the relationships/exchanges between our Ancestor Father and Mother Qbit that are birthing new **random** bits. FA denoted as the **00**; PA is papa denoted as **+1** as consciousness/spirit that connects everything with everything else unifying the whole locally as well as non-locally. The Wheeler's delay choice experiment shows that time-present could effect the time past-present-future events. MA is mama denoted as **-1** that provides local causality that we observe in our world giving *bit its It*.

<sup>1</sup> [http://en.wikipedia.org/wiki/Max\\_Planck](http://en.wikipedia.org/wiki/Max_Planck)

<sup>2</sup> Szilard [http://en.wikipedia.org/wiki/Leó\\_Szilárd](http://en.wikipedia.org/wiki/Leó_Szilárd); Bennett, C. H. (1982), *The thermodynamics of computation—a review*

<sup>3</sup> [http://en.wikipedia.org/wiki/Landauer%27s\\_principle](http://en.wikipedia.org/wiki/Landauer%27s_principle)

<sup>4</sup> [https://en.wikipedia.org/wiki/Ba\\_gua](https://en.wikipedia.org/wiki/Ba_gua)

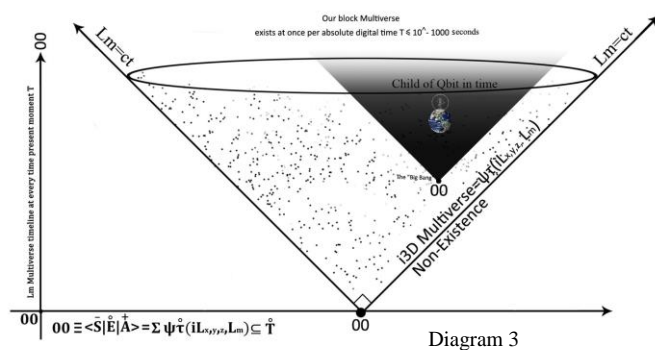
<sup>5</sup> S. Toyabe et al, *Nat. Phys.* 6, 988-992 (2010), and A. Bérut et al. *Nature* 483, 187–189 (2012)

### 3. One singularity Qbit Multiverse:

Nature is beautifully and shockingly simple. Our Multiverse is one singularity Qbit; this Qbit is our Multiverse. All actions live inside this singularity Qbit. This explains quantum entanglement reality in our world.

$$00 \equiv \langle S|E|A \rangle = \psi\tau(iL_{x,y,z}, L_m) \equiv \subseteq T$$

The singularity  $\langle S|E|A \rangle$  is made of singularity A, S and E. In  $L_m$ , A is an anti-entropic time-future photon qbit that is moving at  $c$ , thus its time and its length are zero, whereas S is an entropic time-past graviton qbit that is spinning at  $c$  on its own axis. From the principle of equivalent, A thinks that A is at rest but A observes that S is moving at  $c$ . However, S observes that A is the one is moving at  $c$  while S is at rest. Thus, it is a paradox, which one is moving where? To solve this paradox, we must use our frame of reference. We observe that photon A is moving at  $c$  in a vacuum in our  $iL_{x,y,z}$  world. In this thought experiment, KQID decides that graviton S must be the one is stationary in  $iL_{x,y,z}$  world.



Therefore, we conclude (Child of Qbit in time Diagram 3) our frame of reference that A is moving at  $c$  speed in  $iL_{x,y,z}$  as electromagnetic waves. However in  $L_m$ , A is stationary and its time and length are zero. In contrast, from our frame of reference, S is stationary in  $iL_{x,y,z}$  but S is moving at  $c$  speed in  $L_m$ . A is moving at  $c$  with energy:  $E = hf$ , whereas S is spinning on its axis at  $c$  and has an attractive potential energy in Newtonian-Possion-KQID equation:  $4\pi G\rho - K_{qid}(A\Theta - \Theta_S)g_{\mu\nu}$ . KQID postulates that A and S have equal but opposite forces. A and S exchange of bits make standing waves holding by two poles of singularity A and S.

The singularity S gravity pole in  $iL_{x,y,z}$  world is firmly holding the beginning of the vibrating-strings and the singularity photon A pole is holding the end of that vibrating strings in  $L_m$ . Therefore when we add up them up in  $L_m(ct)$ , we get zero:  $A + S = 0$ . In contrast, if we add them up in  $iL_{x,y,z}$  world, we capture the origin of information, energy, mass, consciousness, time where  $A + S = E$  where  $E = \psi I(CTE)$ , the  $\Psi$  of information (I) of consciousness(C), time(T) and energy(E). That is a brief story of how our physical  $iL_{x,y,z}$  world is created and distributed in real time.

Because both A and S are born together; both are entangled in superposition, singularity A and S are on the top of each other but they are separate. Each singularity located on the  $L_m$  projects itself into  $iL_{x,y,z}$  screen to make our Multiverse, our universe and us. A and S projections are mirror image of themselves and their projections are perfectly matched without any discrepancy and they are bounded together as one local/non-local 3D space in time on the  $iL_{x,y,z}$  screen, hence they create and distribute Existence. A and S provide redundancy and fault tolerant system including error correcting mechanism. Singularity A, S and  $\psi I(CTE)$  by postulation is our Ancestor FAPAMA Qbit, which is infinitely small and infinitely large at the same time; they process information instantaneously every T-moment.

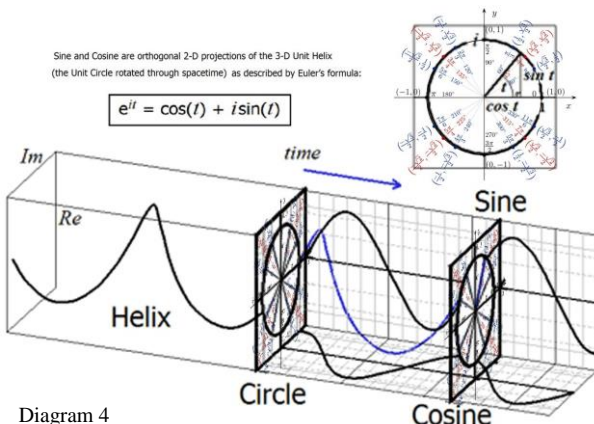


Diagram 4

From this singularity Qbit comes Einstein vector space-in-time of a complex coordinates of unit circle  $|E| = (A + iS)$  where  $A = pc$ ,  $S = mc^2$  and  $(pc)^2 + (mc^2)^2 = E^2 = 1$  project its contents onto a 2D screen, our Multiverse event horizon  $L_m$ . The Qbit projects in realtime holographic images what are going on inside it onto the  $L_m$  screen which in turns project them live onto the bulk of our 3D ( $iL_{x,y,z}$ ) world. We are holograms within holographic Multiverse. (Diagram 4)

Each qbit of  $\psi\tau(iL_{x,y,z}, L_m)$  is that singularity Qbit on  $L_m$ . Gerald Hooft remarked that our past, present and future

are entangled. He wrote:<sup>6</sup> "Thus, the entangled states are needed to describe our universe from day one. In any meaningful description of the statistical nature of our universe, one must assume it to have been in quantum entangled states from the very beginning." Our Multiverse, universe and all living systems must necessarily that single Qbit. Our  $iL_{x,y,z}$  timelike world is swimming inside that singularity  $\langle S|E|A \rangle$  which in turn is swimming through the Minkowski timelike  $iL_{x,y,z}$  world. This  $\langle S|E|A \rangle$  is a Wilczek's superconductivity grid<sup>7</sup> of singularity  $\langle S|E|A \rangle (E=A+S)$  that has  $\leq (10^{-992}m)^2$  area of absolute digital length  $La^2$ . It interacts only with A and S. A and S are forming geometric Einstein complex coordinates  $\psi\tau(iL_{x,y,z}, L_m)$  or  $\psi\tau(iL_{\tau,\phi,0}, L_m)$ . KQID postulates that there is only one single founder Qbit and this Qbit quantized iteratively freely without any cost to Our Ancestor Qbit and our Multiverse. Einstein coordinates are continuously created and distributed Einstein timelike magnitude vectors as subspaces of the  $L_m$  lightlike Minkowski null geodesic. From these quantized Einstein complex triangles  $e^{it} = \cos t + i \sin t$  in timelike  $iL_{x,y,z}$  world come all kinds of relationships. Our reality is Einstein vector space-in-time  $|E| = (A + iS)$ , where S and A are real, and i is imaginary number satisfies  $i^2 = -1$ ,  $S = mc^2$  and  $A = pc$  that satisfies  $(mc^2)^2 + (pc)^2 = 1$  and Euler's formula  $e^{it} = \cos(t) + i \sin(t)$  of unit circle representing information  $\psi I(CTE) = 1$  as the wave function of information in the form of consciousness(C), time(T) and energy(E) in our 3D Multiverse in time  $\psi\tau(iL_{x,y,z}, L_m)$  as the shapeshifter Qbit that takes one or combined consciousness, time and energy properties. It can transform itself from one language, form and substance to another in any combination of properties. These Einstein coordinates are computed inside the 00. From this 00, the singularity Qbit projects its outputs into the bulk of  $iL_{x,y,z}$  world. Thus, our Multiverse is a hologram and is the emerging properties of Singularity Qbit where  $A + S = E$  or  $\psi I(CTE)$  as representative of our FAPAMA Qbit in the  $iL_{x,y,z}$  world.

The Qbit is an infinite being who has the whole consciousness of everything that is, was and will be. Each singularity is unique but each part is one unitary whole. Gamow: "In fact in the world of infinity a part may be equal to the whole." Each burst of photon creation is the birth of a singularity photon A + S. Singularity S is holding the point of the origin of that photon A that propagates as electromagnetic waves in all directions at c in a vacuum in  $iL_{x,y,z}$  world. Each photon A and graviton S is our Qbit's tentacle sense organs.

### The birth of KQID relativity $\psi\tau(iL_{x,y,z}, L_m)$

The equation  $\psi\tau(iL_{x,y,z}, L_m)$  expresses KQID relativity theory

KQID Relativity describes our Multiverse in the compressed algorithm equation  $\psi\tau(iL_{x,y,z}, L_m)$  that shows the relationships of wave function tau  $\tau$  where  $K_{qid}\tau = \sqrt{(1 - v^2/c^2)}t$  where v is velocity, c is light speed in vacuum and t is time at origin. This equation shows that our Multiverse are the product of times, and the 3D of time  $iL_{x,y,z}$  are moving along inside the zero dimension of our  $L_m$ . See KQID-Minkowski's time diagram above that shows our 3D time Multiverse is coming alive inside the 0thD of our Multiverse timeline which is always in the time-present T-moment.

### KQID absolute and relative time and space-in-time

Following Newton's idea of absolute time and space, KQID postulates the absolute digital time T and absolute digital length  $K_{qid}L$  as follows: Absolute, true, and mathematical digital time  $T \leq 10^{-1000}s$ , of itself, and from its own nature, flows digitally forward equally each time ticking according to the time-present moment that our Ancestor Father and Mother are observing, singing, dancing and exchanging their FAPAMA chien ☰ and kun ☷ trigrams to create and distribute Existence, our Multiverse, us and our God/s. Whereas,  $K_{qid}L$  is simply the product of  $T \leq 10^{-1000}s \times c (3 \times 10^8 m)$ , or  $K_{qid}L$  is fixed at  $\leq 3 \times 10^{-992} m$ . Thus, KQID interprets Lorentz and Einstein spacetime as the **space-in-time**. In other words, space is the emergent property of time. Space is the child of time and time is the mother of space. Space is representing three dimension of time  $\psi\tau(iL_{x,y,z})$  moving along our Multiverse timeline  $L_m$ . Time is real and space is also real because time-past-present-future are equally real in time  $L_m$ .

$K_{QID}\tau$  time varies with its speed, because it is indeed time's objects like Newton's corpuscular extended **in time** rather than in space. The  $L_m$  Multiverse timeline is NOT the Minkowski's 4thD but it is the 0thD of time of timeless dimension where time is being synchronized every T. It returns to time-present in which all time-past, time-future

<sup>6</sup> <http://arxiv.org/pdf/0908.3408v1.pdf>

<sup>7</sup> Frank Wilczek, *The Lighness of Being*

and time-present are synchronized. KQID defines  $K_{QID}\tau = \sqrt{(1-v^2/c^2)}t$ , where KQID shows that time contracts; thus the length contracts.

For example, KQID flexible c-timerod in time, to paraphrase Einstein: *Every motion is a relative time-motion measured by a flexible c-timerod in time.* Length is made of time units of c-timerod, c is the KQID flexible c-timerod in time, not the Einstein solid meter-rod. That, length is  $\tau L = \sqrt{(1-v^2/c^2)}tL$ . Thus at  $v = 0$  and 1000km long  $= 1000/c = 1000/300000\text{km/s} = 1/300$  seconds at  $v = 0$ . This is KQID theory of the relationship of time-length. In other words,  $1/300\text{s} = 1000\text{km}$  at  $v = 0$  but if  $v = 0.6$  then  $\tau = \sqrt{[(1-(0.6c)^2/c^2)]}t = \sqrt{(0.64c/c)}t = 0.8t = 0.8/300\text{s}$  or  $4/5 * 1/300 = 4/1500 = 1/375\text{s}$  or less than  $1/300\text{s}$ . The length must be  $1/375 * 300000 \text{ Km} = 800\text{Km} = \tau L = 0.8 * 1000\text{Km} = 800 \text{ Km}$ . Thus, it is verified: the distant contracts because the c-timerod contracts. This is an example of the KQID flexible c-timerod.

KQID absolute and relative time coexist within the KQID theoretical framework. KQID absolute digital time similar with Newton's absolute and true time that is ticking (flowing digitally) at an absolutely regular period  $\leq 10^8$ - $1000\text{s}$  without any external influence. However, the 3D space-in-time are relatively flowing according to KQID relativity.

### Sun light is Sun qbits

Berut et al confirmed that one bit of information at 298.15K is about  $3 \times 10^{-21} \text{ J}$ . Planck/Einstein using  $E = hf$ : we get  $f = 4.5 \times 10^{14}$  hertz or near infra-red spectrum. (Diagram 5)

We get the same result if we use Landauer's bound  $1 \text{ bit} \geq K_b \Theta \ln 2$ . Thus,  $\Theta = 298.15\text{K}$ :  $K_b \Theta \ln 2 = 1.3806503 \times 10^{-23} \times 298.15\text{K} \times 0.6932 = 2.853494 \times 10^{-21}\text{J}$

A particle with a rest mass contains one bit?  $E = mc^2 = 2.858494 \times 10^{-21}\text{J} = m \times (3 \times 10^8)^2 = m \times 9 \times 10^{16}$  at 298.15K

$m = 2.853494 \times 10^{-21}\text{J} / 9 \times 10^{16} = 2.568141 \times 10^{-36}\text{Kg}$ .

Hence, I formulate **KQID's equivalent principle of bits/frequency and mass/bits ratio** as follows:

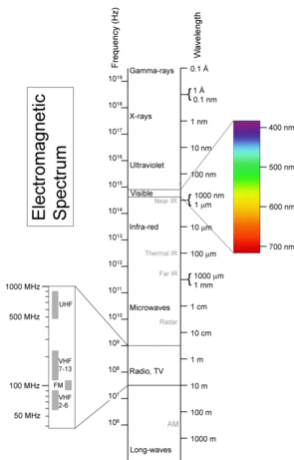


Diagram 5

### KQID Equivalent relationships at 298.15K:

**1. The numbers of bits (Nb):  $N_b = f / (4.5 \times 10^{14})$**  where  $N_b =$  number of bits,  $f = E/h$  contains energy per Planck constant  $h$ , bit must be in bit quanta like light quanta  $h$  at a given temperature according to  $K_b\Theta$ .

**2. For bit to mass ratio: the KQID equivalent simple formula:  $N_b =$  mass at rest/1 bit mass at room temperature  $298.15\text{K} = \text{Rest mass} / 2.568 \times 10^{-36}$**

**The predictions above and below can be easily falsified and verified: bit is it and it is bit.**

Therefore: KQID's **bits to frequency** equivalent at 298.15 K predicts:

10 bits  $\sim 4.3 \times 10^{15} \text{ Hz}$ , ultraviolet.

100 bits  $\sim 4.3 \times 10^{16} \text{ Hz}$ , ultraviolet

1000 bits  $\sim 4.3 \times 10^{17}\text{Hz}$ , x-rays. Thus, it is clear that not only energy proportionally relates to frequency but also to quanta of bits. (Diagram 5)<sup>9</sup>

### KQID bit-mass equivalent at 298.15K.

Electron at rest mass in terms of bits: electron mass-bit equivalent  $= 9.109 \times 10^{-31} / 2.568 \times 10^{-36} = 3.547 \times 10^{15}$  bits.

Proton mass:  $(1.6726 \times 10^{-27} \text{ kg})$  about 1836 x mass of an electron  $= 0.65132 \times 10^{19} = 6.5132 \times 10^{18}$  bits.

<sup>8</sup> <http://arxiv.org/pdf/1110.0003v2.pdf>

<sup>9</sup> <http://en.wikipedia.org/wiki/File:Electromagnetic-Spectrum.png>

Neutron mass:  $1.6749 \times 10^{-27} \text{ kg} / 2.568141 \times 10^{-36} \text{ kg} = 6.5218 \times 10^8 \text{ bits}$ .

The above examples proved that **bit is it and it is bit**.

### Dark Energy, Bit Bang and Big Crush

Using the equation  $K_{\text{qid}}(\Lambda\Theta - \Theta_S)g_{\mu\nu}$  where  $K_{\text{qid}}$  constant is calculated earlier as  $5.92 \times 10^{-14} \text{ m}^3/\text{qbit}$  or  $9.92938 \times 10^{-115} \text{ J/KPv}$  where  $\Lambda\Theta$  as  $2.725 \text{ K}$  and  $\Theta_S$  as  $3 \times 10^{10} - 30\text{K}$ , temperature of the event horizon of our universe calculated by George Smoot et al.<sup>10</sup> Thus:  $9.92938 \times 10^{-115} \text{ J/KPv} (2.725\text{K} - 3 \times 10^{10} - 30\text{K}) = \mathbf{1.3832048 \times 10^{-123} \text{ Pm/Pv}}$  as the dark energy of our universe. This is really identical with the observed cosmological numbers  $1.38 \times 10^{-123} \text{ Pm} / \text{Pv}$ .<sup>11</sup> KQID postulates that this  $1.3832048 \times 10^{-123} \text{ Pm/Pv}$  is a photon A at CMB temperature as the dark energy that varies with the temperature of our cosmic background radiation (CBMR). KQID predicts that today one photon qbit  $A = K_{\text{qid}}(\Theta_{\text{CMB}}) = E = 1.38 \times 10^{-123} \text{ Pm/Pv}$  and this numbers will continue to go down as our universe is inflating until it will reach a critical benchmark when  $A = S$ , then our universe will stop expanding and begin its collapse until all A are converted into S to form what is known as the Omega Black Hole or the Big Crush. From this Crush comes a new Bit Bang obeying  $A = E - S$  where at time zero, there is no entropy, therefore  $S = 0$ , then the Qbit  $A = E = K_{\text{qid}}(\Theta_0) = 4.6 \times 10^{113} \text{ Jm}^3$  where the temperature at the Bit Bang temperature at  $\Theta_0 = 4.6 \times 10^{113} \text{ Jm}^3 / 5.92 \times 10^{-14} \text{ m}^3/\text{bit} = \mathbf{7.8 \times 10^{126} \text{ K}}$  assuming at the Bit Bang, our universe has the energy of Planck pressure \*  $\text{m}^3 = 4.6 \times 10^{113} \text{ Jm}^3$ .

**All Things are one Qbit:** KQID postulates that any Qbit can contain any amount of energy with no theoretical limit. Gravitational singularity of our universe is necessarily singularity Qbit because after the infinite compression, only the singularity Qbit remains. The Qbit that contains everything in qbits because it is the product of those compression! **The singularity Qbit is the Singularity of  $A + S = \psi I(\text{CTE}) = \text{our universe singularity Qbit}$ .** The energy contains in this Qbit at the Big Crush universe depends upon its temperature as described by  $K_{\text{qid}}(\Theta_{\text{end}})$ . Therefore, this is the key of KQID cosmology of our universe that one photon A contains all the energy for the **Bit Bang** as calculated using  $K_{\text{qid}}(\Theta_0)$ : the Bit Bang temperature at  $\Theta_0 = \mathbf{7.8 \times 10^{126} \text{ K}}$  ( $4.6 \times 10^{113} \text{ Jm}^3 / 5.92 \times 10^{-14} \text{ m}^3/\text{bit}$ ) far higher than the current estimate, assuming at the Big Crush, our universe has the energy of Planck pressure \*  $\text{m}^3 = 4.6 \times 10^{113} \text{ Jm}^3$ .

**What was time and the wavelength of the first burst of the Bit Bang?**  $E = hf = h/t = 6.6 \times 10^{-34} \text{ J} / t = 4.6 \times 10^{113} \text{ Jm}^3$ , we can calculate that  $t = 6.6 \times 10^{-34} \text{ J} / 4.6 \times 10^{113} \text{ Jm}^3 = \mathbf{1.43478 \times 10^{-147} \text{ seconds}}$ . This is far smaller time than Planck time of  $5.39 \times 10^{-44} \text{ s}$ .

This means the **lambda  $\lambda$**  of the first Bit Bang is about  $1.43478 \times 10^{-147} \text{ s} \times c = \mathbf{4.3 \times 10^{-139} \text{ meter}}$ , far shorter than the current estimate.

### The event horizon of our Multiverse must be the absolute zero

Applying the Hawking's ( $\Theta$ ) formula  $= 1/R_s$  where (Schwarzschild  $R_s = 2Gm/c^2$ ), then the Hawking  $\Theta$  must be the absolute zero K because the  $R_s = \text{infinity}$  as Multiverse mass = infinity. Thus, Hawking  $\Theta = 0\text{K}$ . Alternatively, we know that the event horizon is bordering with non-existence, and Non-existence has no reading at all.

For our Multiverse's dark energy:  $K_{\text{qid}}(\Lambda\Theta - \Theta_S) = 9.92938 \times 10^{-115} \text{ J/KPv} \times (3 \times 10^{10} - 30\text{K} - 0\text{K}) = \mathbf{1.523 \times 10^{-153} \text{ Pm/Pv}}$ . (See appendix) KQID postulates that this dark energy ( $\lambda\text{m}$ ) of our Multiverse  $\mathbf{1.523 \times 10^{-153} \text{ Pm/Pv}}$  must be  $\lambda\text{m} > 0$ , because if not our Multiverse has to collapse and our Multiverse and us will simply disappear without any trace. No record and nothing left: existence will cease to exist and non-existence is forever and ever. Thus, it is

<sup>10</sup> <http://arxiv.org/pdf/1002.4278v3.pdf>

<sup>11</sup> Brian Greene, *The Hidden Reality*, p. 337



necessarily, our Multiverse dark energy is  $\leq 1.523 \times 10^{-153} P_m/P_v > 0$ . Our Multiverse MUST expand forever and ever in the time-present  $\leq 10^{\wedge}-1000s$ .

In his wonderful book "Programming the Universe", Seth Lloyd calculated that the upper bound transactions in our universe are about  $10^{\wedge}122$  bits, thus if one bit is equal to  $2.85 \times 10^{\wedge}-21$  Joules at 298.15K, then it is now about  $2.85 \times 10^{\wedge}-21 \times 10^{\wedge}122 = 2.85 \times 10^{\wedge}101J$  and this is much less than the KQID assumed energy at the Bit Bang: Planck Pressure  $\cdot m^3 = 4.6 \times 10^{\wedge}113J$ .

KQID estimates when the inflection point will be reached and when our universe will begin to Crush.

Applying  $A = E - S$  at the Bit Bang moment,  $S = 0$ , then  $A = E$ .  
Calculating when  $S$  is starting to be bigger than the  $A$  and when  $S = E$  and  $A = 0$ ?

Assuming that the Planck Pressure  $\cdot m^3$  is the energy that triggered the Bit Bang  $A$  ( anti-entropic bits) with  $4.6 \cdot 10^{\wedge}113Jm^{\wedge}3$ .

The question is when it will be reaching the total transactions around the KQID upper bound  $1.77649 \times 10^{\wedge}136$  bits based the CMB  $\Theta = 2.725K$ . Applying  $Kb\Theta \ln 2$  we find the value of one bit  $\geq Kb\Theta \ln 2$  where  $\Theta = 2.725K$  thus  $2.725 \times 1.3806503 \times 10^{\wedge}-23 \times 0.6932 = 2.608 \times 10^{\wedge}-23 J$ . Then, how many bits if  $S$  is equal with  $A$  assuming at the Bit Bang, the total energy of  $S$  was at  $4.63309 \times 10^{\wedge}113 / (2.608 \times 10^{\wedge}-23) = 1.77649 \times 10^{\wedge}136$  bits. If we divide this number with Lloyd's upper bound  $10^{\wedge}122$ , we get  $1.77649 \times 10^{\wedge}136 / 10^{\wedge}122 = 1.77649 \times 10^{\wedge}14$  or **177.649 trillion times more bits**. As of now, it looks like our cute baby universe (13.8 billion years old) has many hundreds trillions years more to go and furthermore as our universe is aging it is using less energy to compute, thus it will use even less energy than before for doing the same thing.

Interestingly, we can get the same value 177.649 trillion times larger when we use different method in unit of Joules energy of calculation using Lloyd upper bound bits of transactions ( $10^{\wedge}122$  bits) in our universe since the Bit Bang, the energy of one bit at CMB 2.725K as follows: assuming the  $S$  entropic energy that has been accumulated since the Bit Bang, Lloyd's numbers =  $10^{\wedge}122 \times 2.608 \times 10^{\wedge}-23 J = 2.608 \times 10^{\wedge}-99 J$ . Thus this is the value of  $A$  used up or  $S$ , entropic bits, in energy  $J$  unit of measurement since the Bit Bang. If we divide the energy of  $A$  at the bit bang moment by approximately  $A$  energy assuming the CMB as the energy now and assuming at the Bit Bang as  $4.63309 \times 10^{\wedge}113 J$ . What have left is  $A/S = 4.63309 \times 10^{\wedge}113 / (2.608 \times 10^{\wedge}-99) = 1.77649 \times 10^{\wedge}14$  or **177.649 trillions times of magnitude bigger**, which are the same numbers as above using different calculation!

### How many bits are in our universe and Multiverse using Bousso's formula?

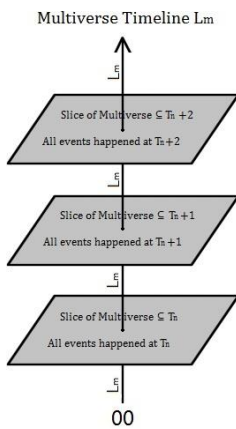


Diagram 6

Bousso, The holographic principle,<sup>12</sup> says that  $S_{global} \leq 3\pi/\lambda$  where KQID says that it is based on observation that  $\lambda(1.38 \times 10^{\wedge}-123P_m/P_v)$  is  $\leq 6,8 \times 10^{\wedge}123$  bits match with Seth Lloyd upper bound bits since the Bit Bang is about  $10^{\wedge}122$  bits. For Multiverse, KQID calculated about at the minimum bound  $S_{Multiverse} \geq 6.3 \times 10^{\wedge}153$  bits that are projected onto our Multiverse event horizon. Our Multiverse is indeed a colossal Susskind hologram!

### KQID causality and the arrow of time

The event  $T_n$  causes the event  $T_{n+1}$  and the event  $T_{n+1}$  causes the event  $T_{n+2}$  and so on. KQID agrees with Hooft's rule that we cannot go back and kill our grandfather in the past. But KQID allows the grandson the ability to kill his grandfather in the time-present by reviving his grandfather first in the time-present and then kill him without a paradox and without effecting his own life here and now. Hence, KQID's absolute digital time concept does solve both Hooft's dilemma and Susskind's Holographic Principle dilemmas of the underlying assumption that we **can** go back in time. But in KQID, we **cannot** go back in time but we can recreate the past event or a dead person in the present

<sup>12</sup> <http://arxiv.org/pdf/hep-th/0203101.pdf>

by quantum archeological dig of the past event to be holographically projected into the present 3D  $iL_{x,y,z}$  time screen in the time-present. Because, KQID First Law of Multiverse: no information is deleted ever, thus, **we are immortal!**

Closing poem: *Let there be me!*

### **Qbit in time**

*Let there be me!*

Behold!

Existence exist; our Ancestor FAPAMA Qbit emerges out of Non-existence, and immediately thereafter, our Ancestor Father and Mother Qbit are singing, dancing and exchanging their "genetic" qbits ever since at every absolute digital time  $T \leq 10^{\wedge}-1000s$ .

Time qbits emerges,  
Then everything else follows.  
Time has been endlessly splitting up ever since into seconds, and  
Things are expanding without ending.

### **Child of Qbit in time:**

Time, thus I exist.  
Born free and be free on Carl Sagan's beloved blue dot,  
Oh... Qbit, I owe Thee my being, my destiny, my sorrow, my ecstasy, my bittersweet chocolate happiness,  
My one and only precious life is truly the only possession I own in this Disney's magical Multiverse,  
Why then Thee is taking back Thy's precious gift of life?  
Washing me down in the laundry of time second by second into oblivion?  
Killing me softly as an inmate in the death row,  
Forcing me to wait nervously for an angel of death to steal my precious bitter but sweet chocolate life?  
Have I committed a capital crime to deserve this death sentence by slow death,  
I am innocent...I am innocent!  
Fair hearing, I plea,  
Justice, I desire,  
Hear...hear...Thee!

I plea,  
Child of Qbit in time

### **Qbit:**

O... my beloved precious,  
I hear you...I hear you...don't despair!  
I have already bestowed you all my divine creative "genetic" qbits, so that you can freely create and distribute anything you wish for,  
But you must use my creative qbits to do good, not evil, to its fullest,  
Your fate is in your own hands,  
You are the hero of your own life, and the owner of your own destiny,  
Enjoy all the earthly and heavenly pleasures,  
Savor those flowers, fruits, chocolates, cakes, fishes, animals, rivers, oceans, earth, moon and stars,  
Explore, exploit and play at any time at any place, even the faraway edge of our Multiverse,  
Enjoy your life to the fullest.  
Since we are one, your enjoyments and sufferings are truly mine.



Moreover, anything you wish for, in the form of John Wheeler's series of qbit questions and answers of yes-no-maybe loaded apps command,  
You are hacking Existence's operating system according to your own desire,  
I swear!  
Your wishes are my command,  
Timely and tirelessly, I am working to fulfill your dreams and aspirations, since yours are truly also mine.  
If you do not want to die, you could download and upload yourself onto your own custom designed biological-machine.

Even if you should die now,  
Your death is not a death in my loving embrace,  
Your qbits are immortal in my safekeeping,  
Me in you, and you in Me,  
We are inseparably entangled,  
Not now not ever could set us apart,

My child--I love you so much and please don't worry,  
Let us sing and dance together following the tune of Yang Zhu's six arts of life and everything will be wonderful:

*Let there be me!*

"Let the ear hears what it likes,  
Let the eye sees what it likes,  
Let the nose smells what it likes,  
Let the mouth says what it likes,  
Let the body enjoys the comforts it likes to have, and  
Let the mind does what it likes." <sup>13</sup>

Your Ancestor,

**Qbit**

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<sup>13</sup> Chu Yang, *Yang Chu's Garden of Pleasure*

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**Appendix:**

Here the details calculation on the KQID's Multiverse Dark Energy:  $K_{\text{qid}}(\Theta_A - \Theta_S) = 9.92938 \times 10^{-115} \text{ J/KPv} \times (3 \times 10^{30} \text{ K} - 0 \text{ K}) = 29.78814 \times 10^{-145} \text{ J/Pv} = 2.978814 \times 10^{-144} \text{ J/Pv}$   
 $2.978814 \times 10^{-144} \text{ J/Pv} \div c^2 = 2.978814 \times 10^{-144} \text{ J/Pv} \div (2.997925 \times 10^8)^2 = 2.978814 \times 10^{-144} \text{ J/Pv} \div (8.98755 \times 10^{16}) = 0.33143766 \times 10^{-160} \text{ kg/Pv} = 3.3143766 \times 10^{-161} \text{ kg/Pv}$

Conversion into Planck Mass:

$$3.3143766 \times 10^{-161} \text{ kg/Pv} \times (1 \text{ Pm} / 2.17651 \times 10^{-8} \text{ kg}) = 1.52279412 \times 10^{-153} \text{ Pm/Pv}$$