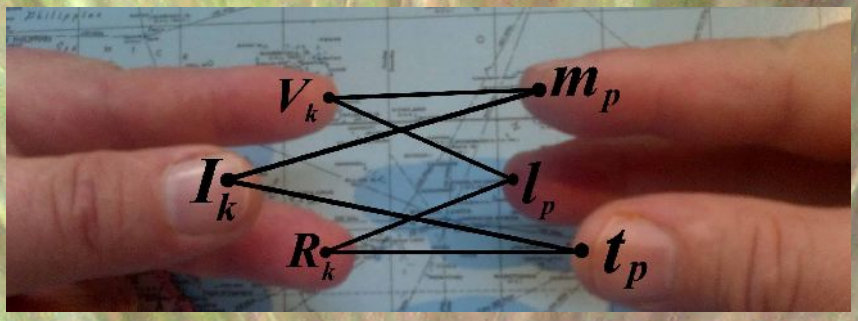
A brief overview of the new order in the Universe

It's great that you think about this stuff

99 years after General Relativity

Incipient Law of Creation

by Krunomir Dvorski



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The general idea is to create a new frame of reference for the smooth continuous nonviolent creation of our reality. Singular point, infinity and the Big Bang are so forced and violent, that it is difficult to predict, imagine and believe in such properties of nature. Also it is hard to imagine that the material world was created out of nothing in almost no time. There is no place for the infinitely small and infinitely large values in the physical world.The broken laws of nature are not acceptable. Universe must be smooth. Reality must be a continuous stream of changes. The beginning must be in reasonable physical boundaries.

Imagine *Prime Spark Beginning* and a continuous growth of mass and growth of volume by flipping from *space of property* (*SofP is* an unusual blend of the real world without mass, space and time). The formed space of reality is homogeneous and filled with particles, ... photons did not exist. Created 'particles' are the only carrier of space, mass and time. Average density of space has a critical density of flat universe and does not change in time. Created volume is equal to the total volume of particles. It means that particles have a critical density also.

This new frame of reference promises a nonviolent creation of our reality, and accepts the idea of birth, growth and evolution of our reality. In this a modest description we can not avoid many questions such as: What are those strange particles, and how they fit into the standard model of elementary particles? How they have become? What is the fate of our reality?... You'll find the answers on below.

In physics, Planck units are physical units of measurement based on the five universal physical constants: speed of light in a vacuum c, gravitational constant G, reduced Planck constant $\hbar$, Coulomb constant k_e, and Boltzmann's constant k_B. All of them are related with at least one fundamental physical theory, such as: Newtonian gravity, special and general relativity, quantum mechanics, electrostatics, statistical mechanics and thermodynamics. The first three of these constants (c, G, and $\hbar$) are sufficient to define the Planck length l_p, Planck time t_p, and Planck mass m_p. They are presented through the basic structure of the laws of physics with the following equations:

$$l_p = c \cdot t_p \qquad F_p = \frac{m_p \cdot l_p}{t_p^2} = \frac{G \cdot m_p^2}{l_p^2} \qquad E_p = \frac{m_p \cdot l_p^2}{t_p^2} = \hbar \cdot \left(\frac{1}{t_p}\right)$$

Where F_p is Planck force and E_p is Planck energy.

Solving the three equations above gives us the value of Planck units as follows.

The Planck length l_p:

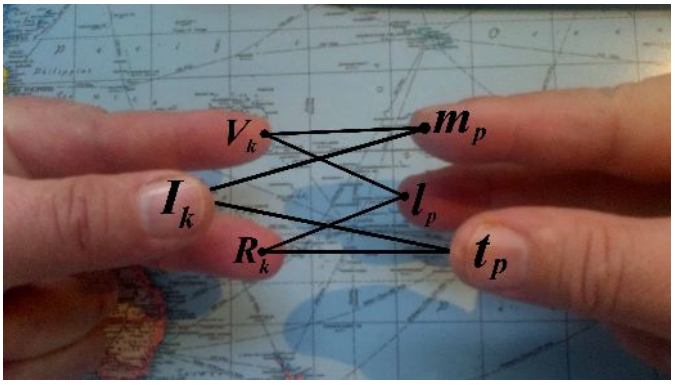
$$l_p = \sqrt{\frac{\hbar \cdot G}{c^3}} = 1.616199(97) \cdot 10^{-35} m$$

The Planck time t_p:

$$t_p = \sqrt{\frac{\hbar \cdot G}{c^5}} = 5.39106(32) \cdot 10^{-44} s$$

And the Planck mass m_p:

$$m_p = \sqrt{\frac{\hbar \cdot c}{G}} = 2.17651(13) \cdot 10^{-8} kg = 21.7651 \mu g$$



The six fingers interpretation

The aforementioned units above play an important role in explaining the origin of material world. *Planck length* is the smallest measurable length. *Planck time* is the smallest measurable time required for light to travel, in a vacuum, a distance of Planck lenght. *Planck mass* ***is the greatest amount of mass which can be in one vast particle called flippon***. This framework is a major milestone in creating a new image of the universe.

It is possible to combine universal physical constants (G, ħ and c) to produce many new units. Look at the picture *"The six fingers interpretation"*. On the right side are well known *Planck units*. On the left side of the picture are new units relevant to the *Flipping theory*. They have special properties and physical meaning. Let's define them:

The length-time goo (unit):

$$R_k = l_p \cdot t_p = \sqrt{\frac{\hbar \cdot G}{c^3}} \cdot \sqrt{\frac{\hbar \cdot G}{c^5}} = \frac{\hbar \cdot G}{c^4} = 8.71 \cdot 10^{-44}\, m \cdot s$$

The mass-length goo (unit):

$$V_k = m_p \cdot l_p = \sqrt{\frac{\hbar \cdot c}{G}} \cdot \sqrt{\frac{\hbar \cdot G}{c^3}} = \frac{\hbar}{c} = 3{,}518 \cdot 10^{-43}\, kgm$$

And the mass-time unit:

$$I_k = \frac{m_p}{t_p} = \frac{\sqrt{\frac{\hbar \cdot c}{G}}}{\sqrt{\frac{\hbar \cdot G}{c^5}}} = \frac{c^3}{G} = 4.037 \cdot 10^{35}\, kg/s$$

There is a reason for the choice of these units. All three of them are not relativistic. Lorentz factor as a function of velocity is not applicable to them. Why does this matter? As you know, relativity is an integral part of our reality. This is been confirmed a thousand times. Simultaneously, the singular point is a consequence of relativity. Our knowledge and new insights were blocked with that 'stupid truth'. There must be an explanation and a way out of this situation. The answer lies in predicted a not relativistic space of property (*SofP*).

If someone went to the *SofP* that will not see measurable physics; physical measurement is not possible. For finding out more about *SofP*, we must create a system that will give us an answer without knowing the measurable details. These details have a strange properties beyond our reality.

Let's go back to our newly defined units. The first two units (goos) R_k and V_k are candidates for *SofP*. Lorentz factor is not applicable. Meanings of 'meter-second' and 'kilogram-meter' is hard to imagine, but both of them introduce quantum fluctuations, uncertainty principle and relativity through a minimum value of the length-time ($8.71\times10^{-44} m \cdot s$) and a minimum value of the mass-length ($3.518\times10^{-43} kgm$). In the real world, they do not exist as particles, they exist as a principles and some natural limitations. Let's try to explain.

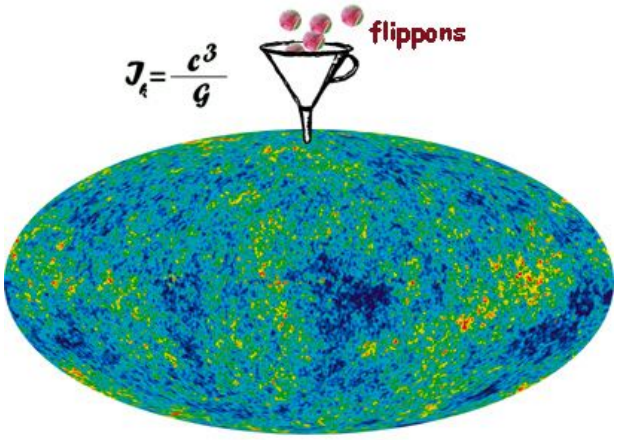
If we apply the mass of the electron $m_e = 9.1\times10^{-31} kg$ on the mass-length goo:

$$V_k = m_e l_e = 3{,}518 \cdot 10^{-43}\, kgm$$

we simply calculate length l_e= 3.86×10^{-13}m = 0.386pm. Let these length equal to the wavelength of photons, produced by the electrons. This corresponds to a frequency of 7.76×10^{18}Hz = 7.76 exahertz, where is upper limit for X-ray and the lowest frequency of gamma rays. Gamma rays typically have frequencies above 10 exahertz. By the same analogy mass-length goo can be applied to other subatomic particles. It is an interesting topic for research.

The length-time goo (R_k) is even more difficult to understand. In simple terms it is a particle of *SofP* in which length and time fluctuates, and make them folded, sealed and inseparable. Inseparability of space and time in the real world is manifesting themselves through the relativity.

The goos R_k and V_k in many ways associated to strings. They create the illusion of invisible energy and illusion of *fluctation in a vacuum*. Flipping theory does not accept the *fluctation in a vacuum*. The vacuum is empty space without energy. R_k and V_k do not exist in a vacuum, they are a part of *SofP*. Goos R_k and V_k fluctuate in their own ambiguity.



Artistic interpretation of the Flipping theory growing universe - Continuous creation of flippons increases the space and mass of our reality. Time as a result of the order of things appeared immediately after the mass and space.

There is a possibility of interaction between goos, something like a collision. It is not a classic collision between accelerated particles, it is a *goo-collision* between fluctuating length-time and fluctuating mass-length in *SofP*. Result of their goo-collision is the *flipping transpformation* from *SofP* to the *SofR*, whereby *flippons* are formed. The process of a *goo-collision* and forming flippons is accompanied by generating mass and space, and can be described by *Incipient Law of Creation* (*Previously Ohm's Law of the Universe*) and mass-time unit:

$$I_k = \frac{V_k}{R_k} = \frac{c^3}{G} = 4.037\cdot10^{35}\, kg/s$$

The previous name *Ohm's Law of the Universe* was borrowed and has nothing to do with Ohm's Law. As stated, V_k is the mass-length goo which recalls the voltage, R_k is the lenght-time goo which recalls the resistance, and I_k is the mass-time unit (mass flow) which remind on current. The I_k is derived by mutual dividing V_k and R_k . This unit is a very real and belongs to the space of reality. In reality, it is the mass rate at which the mass of the universe is constantly growing. This growth was accompanied by a volume increase also. Number $4.037\times10^{35}kg/s$ is equivalent to two hundred thousand solar masses per second. Lorentz factor is not applicable. This is very important because the mass flow is protected against Lorentz asymptote.
The *Incipient Law of Creation* promises a nonviolent creation of our reality, and accepts the idea of birth, growth and evolution of our reality. Faith into the future is open. This will be discussed later.

Age, mass and size of the universe

Age, mass and size of the universe refers to the space of reality (*SofR*). We can not talk about them in space of property (*SofP*), they are too real and they do not exist there. If we accept the "WMAP+eCMB+BAO+H_0" measurements we can estimate the age of the universe to about T_u = 13.772(59) billion years or $4.346(19)\times10^{17}s$. Flipping theory provides a different approach (about this later).

In accordance with *Incipient Law of Creation* we can simply calculate the t*otal mass of the universe*, from mass flow and from age of the universe:

$$M_u = I_k T_u = \frac{c^3 T_u}{G}$$

$$M_u = I_k T_u = 4.037 \times 10^{35}\, kg/s \cdot 4.346 \times 10^{17}\, s = 1.754 \cdot 10^{53}\, kg$$

Interestingly, the total mass of the universe depends only on natural constants *c* and *G* and age of the universe. The mass of the universe value of $1.754 \times 10^{53}\, kg$ is approximately equal to the mass of the universe calculated by other methods. If this statement is true, I get the most accurate mass of the Universe with uncertainly 0.4%.

Volume of the universe can be determined from its mass and mass density:

$$V_u = M_u / \rho_u = c^3 T_u / G \rho_u$$

The present overall mass density of the universe is very low, roughly 4.5–18 $\times 10^{-27}$ kilograms per cubic metre. This mass consists of dark matter and ordinary matter with all forms of energy, except dark energy. The most promising density of the universe is critical density of the flat universe. By applying critical density, we can easily calculate the volume and diameter of the universe:

$$V_u = M_u / \rho_o \approx 1.754 \times 10^{53}\, kg / 9.9 \times 10^{-27}\, kg/m^3 = 1.772 \times 10^{79}\, m^3$$

$$D_u = \left(6 V_u / \pi\right)^{1/3} = \left(6 \cdot 1.772 \times 10^{79} / \pi\right)^{1/3} = 3.235 \times 10^{26}\, m$$

$$D_u \approx 34.19 \times 10^{9}\, ly$$

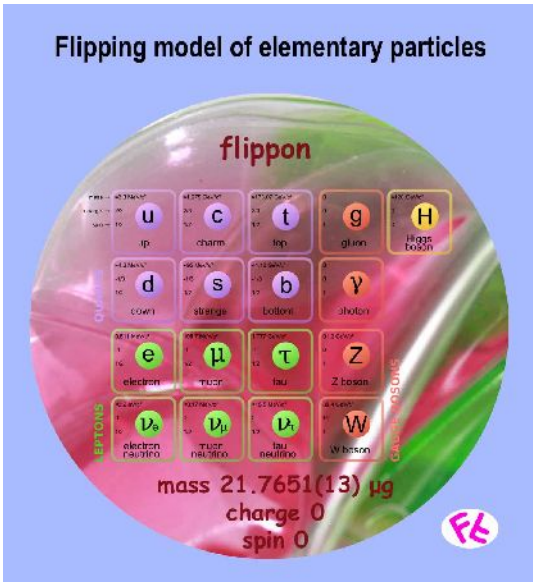
Both values volume and diameter are very acceptable. They are in the frames of observable and measurable universe. The main players are flippons. The confirmation should be sought in the detailed observation and analysis of available data. Small corrections in the approach are necessary. It will confirm the correctness of *Flipping theory* and *Incipient Law of Creation*.

The Flipping model of elementary particles

As you know, the *Standard model of particle physics is a theory concerning the electromagnetic, weak, and strong nuclear interactions, which mediate the dynamics of the known subatomic particles...* [*Wikipedia]
Standard model is limited to the microcosm. Macrocosm and physics of large scale is not covered. Fortunately Flipping theory opens up new possibilities. To obtain *Flipping model of elementary particles,* should add one more particle into *Standard model of elementary particles* (see the picture below); it is *flippon*. You must agree that this is a simple but significant changes.

Flippon is a huge massive particle generated by flipping transformation from space of property (SofP) to our space, space of realiti (SofR). The transformation is caused by "goo-collision" between fluctuating length-time and mass-length goos. The process of a forming flippons is accompanied by generating mass and space, and can be described by *Incipient Law of Creatio*. Flippon carries the mass m_F = 21.7651(13) μg, brings the volume V_F=2.198 x $10^{18}\, m^3$ (approximate diameter ≈1613 *km*) and generates a minimum quant of time t_F = $5.39106(32) \times 10^{-44}\, s$. Flippons do not carry any electrical charge, weak nuclear force, and strong nuclear force. Flippons are mutually transparent, do not collide, and do not bounce with each other and with ordinary matter. Furthermore, they are utterly transparent without any friction or viscosity, and behave almost as an empty space. Flippons interact through gravity only. It is assumed that the flippons do not spin.

At the moment of creation, flippons use a three basic processes: *summation of mass*, *summation of volume*, and *time flow*. After formation, under the influence of gravity, flippons are being accumulated into the dark matter clouds. There are two types of clouds, *flipptant* and *flippmint*. *Flipptants* are clouds with large presence of flippons which can trigger a new process called *Massaggregation*; generating elementary particles. *Flippmints* are small clumps of dark matter from which can not arise ordinary particles.



Flipping model of elementary particles. Flippon is the elementary particle and basic building block of the universe from which was produced all other particles by own breakage.

Artistic comparison of Moon and flippon. Flippon diameter is 1613 km, the radius of Moon is 1737 km.

As discussed, *flippon mass* is 21.7651 μg or 12.2×10^{15} TeV/c^2 which is equal to Planck mass:

$$m_F = m_P = \sqrt{\frac{\hbar c}{G}} \approx 21.7651(13)\ \mu g$$

Let's look at the comparison table of mass:

Item	Value
US RDA for vitamin D for adults	15 μg
Uncertainty in the mass of the International Prototype Kilogram	~20 μg
Flippon mass (Planck mass)	21.7651(13) μg
One eyebrow hair	~70 μg
Fruit fly (dry weight)	200-300 μg

Comparing with other particles flippon is really really huge particle, and owns a complete energy through its own mass. Other types of energy can be produced by *massaggregation* (*crushing flippons* into a large number of elementary particles).

Since the flippon is the only generator of volume, we can easily calculate their volume from mass and critical density of flat universe:

$$V_F = m_F / \rho_c = 21.7651 \times 10^{-9}\, kg / 9.9 \times 10^{-27}\, kg / m^3 = 2.198 \times 10^{18} m^3$$

The ball of so volume has a diameter approximately 1613 *km*. It is really a huge particle. Can you imagine a particle diameter of 1613 *km*? For comparison, the radius of Moon is 1737 *km*. Interestingli, flippons pass through the Moon (through ordinary matter) freely and interact by gravity only. Also, elementary particles, atoms, molecules and small objects pass through flippons freely. They share space and interact by gravity.

References

1. [1]Krunomir Dvorski, Ohm's law of the universe and mass of the Universe, The Official Flipping theory Web Site, http://www.science.uwaterloo.ca/~kdvorski/TheFlippingTheoryWebSite/FeedYourMind.html
2. [2]Krunomir Dvorski, A brief overview of the new order in the Universe, Gallery Krunomir http://www.science.uwaterloo.ca/~kdvorski/TheFlippingTheoryWebSite/FeedYourMind.html