

# Conjecture of Negative Matter and Negative Internal Energy

Xuhong Zou and Yuan Li

Diablo Valley College, Pleasant Hill, California, United States of America.

December 31, 2014

## Abstract

We try to use the word “balance” to explain the energy in this universe. In chemistry, we know if a matter wants to be stable[1], the energy must be lower and lower. So we have reason to believe that if our universe is stable, then the total energy equal to zero, the perfect balance. We use coordinates to prove negative matter and negative internal energy exists and builds molds to explain the relationship between negative matter and normal matter in our universe.

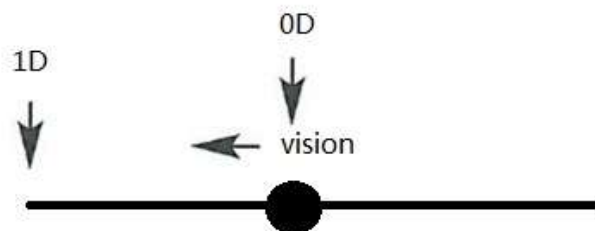
Keywords: Negative Matter, Negative Internal Energy.

## I. INTRODUCTION

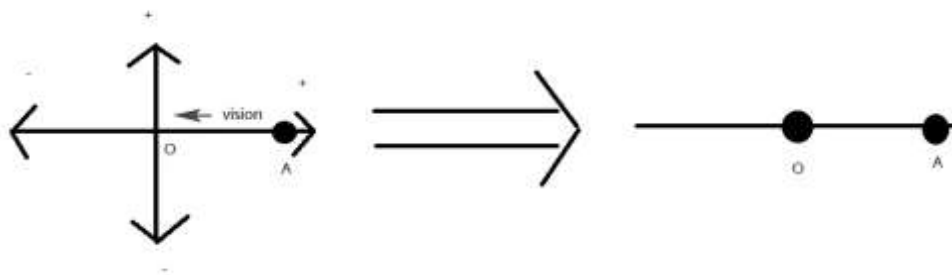
### 1. Dimensions in Coordinates

The reason that we cannot see some matter is because the dimensions are different. At here, we use coordinates system to explain it.

At first, the zero dimension. Zero-dimension is a single point. We cannot observe any vectors in the zero-dimension (except  $\vec{0}_{[2]}$ ), but that not means vectors are not exist. We put a single point (one zero-dimensional space) on one-dimensional space, and then we have graph as a point on a line. In one-dimensional space we have two different unit vectors:  $\langle 1, 0 \rangle$  and  $\langle -1, 0 \rangle$ . One is on the right, and the other one is on the left. If we stand on zero-dimensional space to observe one-dimensional space, it should be a point, which means zero-dimensional space cannot observe any vectors on one-dimensional space, but actually it has.



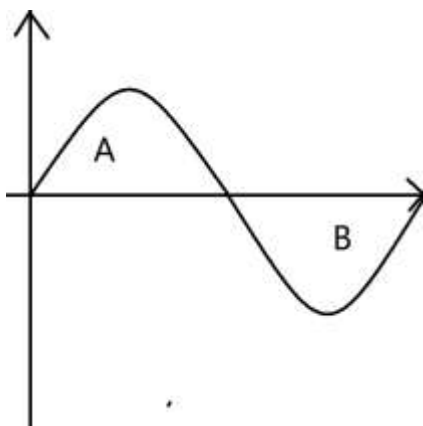
Following, we use coordinate system to consider dimension. A single point means zero-dimension, and all axes in coordinate system mean one-dimension space. As we know, two-dimensional coordinate system was built by x-axis and y-axis, as two one-dimensional spaces perpendicular to each other. If our world is one-dimension, and we stand on x-axis to observe y-axis, it will be a point on the origin point. It is same with three-dimensional space and four-dimensional space.



In the other word, we cannot observe a higher-dimension vector if we live in a lower-dimensional space.

## 2. Calculation of Area in Different Dimension Space

For example, we have a graph  $y=\sin(x), 0 \leq x \leq 2\pi$ , and now let us find the area.



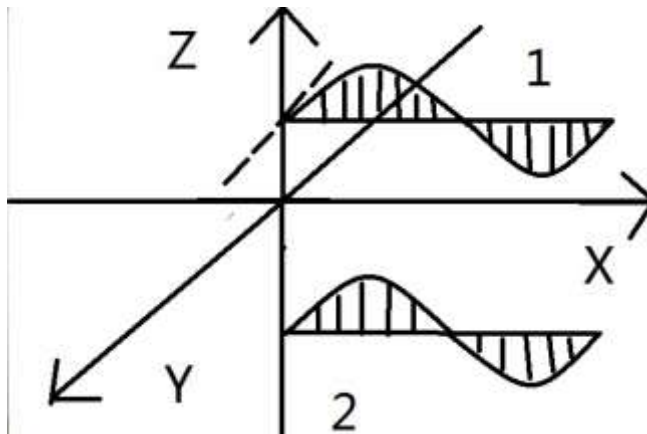
We have zone A and zone B, and then we have a question, how to find the total area? In mathematics, this is a real easy question. Total area equal to zone A plus zone B. But we have to say if we put this graph in different dimensional space, then result will be different.

At first, we put this graph in the zero dimensional space. The zero dimensional space is a point! As we said before, the zero dimensional space only has a single dot, so area is zero. Then, we put this graph in the one dimensional space. This graph looks like a line. We cannot find any area value if we only have a line, so the area still is zero.

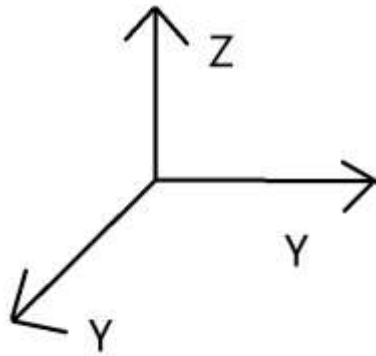
Now, we put this graph in the two-dimensional space. As we know, in two-dimensional space, area cannot be a negative value, so we have to calculate the area separate, and then add them. So area value is zone A plus zone B.

If we put the graph in the three-dimensional space, what will happen? Zone A

and zone B as a piece of paper and they are in same plane. So we can see some different may to put this paper in the three-dimensional space.

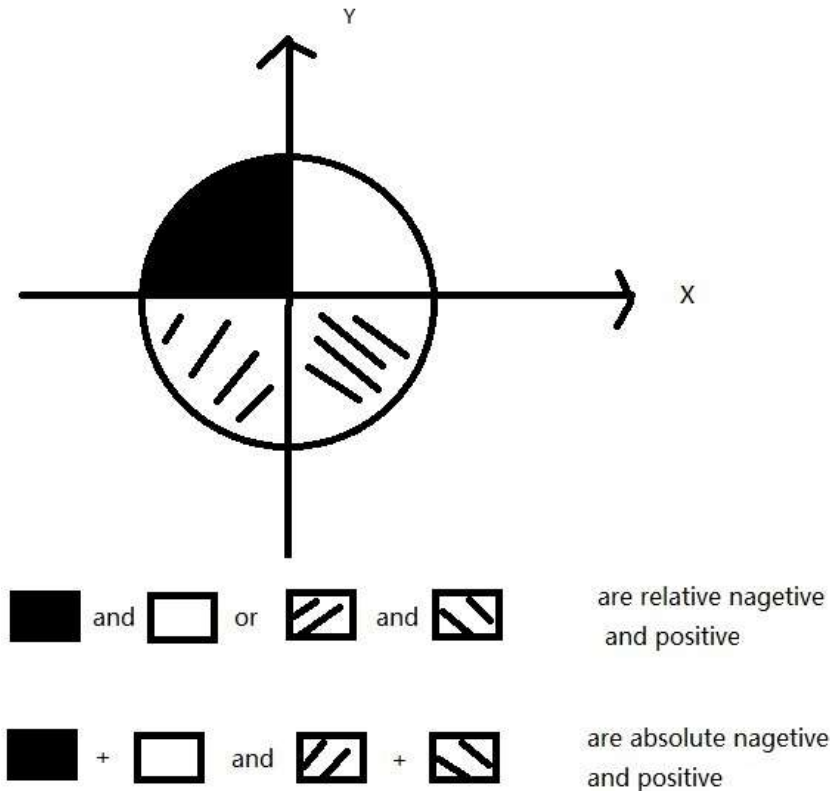


When you see the graph, you may say, Zone 1 and Zone 2 have same value and area. The only different is z-axis value. Ok, what is the real three-dimensional coordinate axes we used?



This is 1/8 the three-dimensional coordinate axes! Where is excess 7/8 the three-dimensional coordinate axes? We do not use excess 7/8 before because we cannot say an object has negative value length in our world, but that is not meaningful, excess 7/8 the three-dimensional coordinate axes do not exist! I know it is hard to understand, now let us back to the two-dimensional space.

Supposing we use right hand of X-axis as start point, and draw a circle by counterclockwise direction, so  $0^\circ < \theta < 90^\circ$  and  $90^\circ < \theta < 180^\circ$  are relative[3] positive zone and negative zone,  $0^\circ < \theta < 180^\circ$  and  $180^\circ < \theta < 360^\circ$  are absolute positive zone and negative zone. We are unable to find negative half-zone, because negative half-zone and positive half-zone are absolute[4] positive and negative, they are not relative positive and negative.



### 3. Negative Internal Energy[5]

In theory of relativity[6] that indicates matter and energy don't have the positive value and negative value. But in our assumption, we consider such like mass, energy and so-on have the positive and the negative. Because in The previous discussion that indicate in higher dimensions can inspect negative value and positive value which are in lower dimensional space, we cannot find energy and mass as half-axis in our axis of dimension, which means if we want to see all parts of this axis, we need to stand on higher dimension. We know energy and mass affect our dimension, but we are unable to see energy and mass's other half axis, just like creature locate in  $0^{\circ}\sim 180^{\circ}$  cannot see other creature that locate in  $180^{\circ}\sim 360^{\circ}$ . For example, we know when Na lose an electronic and it becomes  $\text{Na}^+$ , but we cannot inspect  $\text{Na}^+$  and  $e^-$  exist at the same time in same container. At here, we can consider  $e^-$  is quality energy of  $\text{Na}^+$ . Of course, this is relative, because quality energy of Na not only has a  $e^-$ , if there is element is M and M have only an electron without neutron and proton, so  $\text{M}^+$  and  $e^-$  are absolute relationship of positive and negative .In other word, only negative energy affects other things, we can speculate it exists.

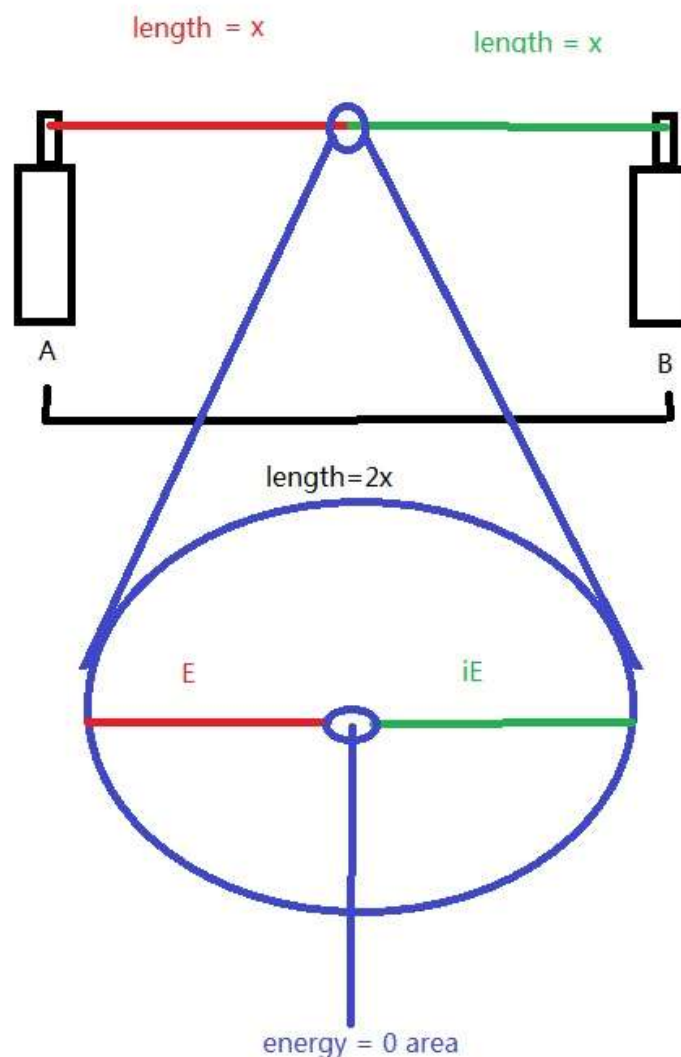
At here, all the negative energy we are talking about is negative internal energy, because in our world, negative energy means endothermic reaction[7] and positive energy means exothermic reaction[8].

## II. IDEAL EXPERIMENT

Title: Collider of Positive Internal Energy and Negative Internal Energy

Purpose: In this ideal experiment, we use two machines to launch a kind of matter massless and can absorb positive energy make it becomes positive internal energy or absorb negative energy make it becomes negative internal energy (or two different wave, one conclude positive energy and the other one conclude negative energy). We use two matters collide to prove  $E+iE=0$ .  $iE$  means negative internal energy.

1. A machine A can launch a wave which concludes energy  $E$ , another machine B can launch a wave which can absorb all the energy from A.
2. Make two machines on the same lane, and launch wave at same time.



We also have another ideal experiment, using the same machine to radiate the  $E$  wave and  $iE$  wave to the same direction at the same time. We use these two ideal experiments to indicate energy can be created by nothing, but positive energy and negative energy must be created at the same time and the total energy must be zero.

### III. CALCULATION OF NEGATIVE INTERNAL ENERGY AND POSITIVE INTERNAL ENERGY

At first, we have to declare positive internal energy cannot combine with negative internal energy in any case, if they could, means this universe do not exist or it could be annihilate in any time, because total internal energy is zero.

Secondly, we have an equation from ideal experiment:  $E + iE = 0$  ( $E$  means positive internal energy and  $iE$  means negative internal energy). In this equation, not means every value of internal energy combine equal to zero. There is one and only if the absolute value same, they can combine and value is zero.

If  $|iE| = |E|$ , then  $E + iE = 0$ . If  $|iE| \neq |E|$ , then there is no reaction.

Third, negative internal energy can combine with another negative internal energy in any case; it is same as positive internal energy.

### IV. THE REALSHINSHIP OF MATTER AND INTERNAL ENERGY

Positive internal energy and negative internal energy as two vectors have opposite direction, so if we combine them as two vectors add in one-dimension space, but that is mean-less for internal energy. As we know, we can name any point as origin point (O) in one-dimension, so the value of zero for internal energy in one-dimension is mean-less. So, if we want a matter or internal energy is real zero, we have to give them two dimensions to fix origin point. The best way is perpendicular. The relationship looks like electricity and magnetism.

We conjecture the internal energy like magnetism and the matter like electricity. We can use Maxwell's Equations[9] to find the relationship of matter and internal energy, but parameters must to be changed.

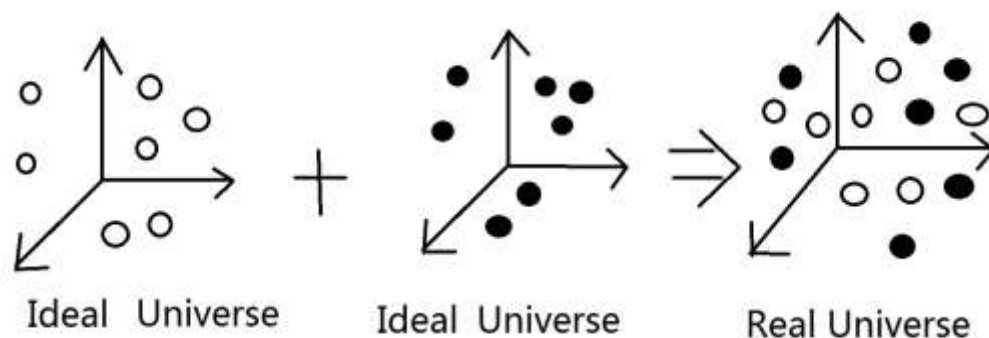
For our assumption, we use Coulomb's law[10]:  $F = k_e \frac{qq'}{r^2}$ . Which could be

consider same with Newton's law of universal gravitation[11]:  $F = G \frac{m_1 m_2}{r^2}$ , because matter has mass. The only different is  $G$ , the constant.

Due to the limitation of the academic level, currently we can't completely replace the parameters of the equations so it is only a conjecture.

### V. IDEAL UNIVERSE AND REAL UNIVERSE

If internal energy can be transfer to matter, then matters will be hold together use Newton's law of universal gravitation. So, we have two molds for universe, one is ideal universe which only has positive matter and positive internal energy, and the other one is the real universe which has both positive matter and negative matter, and that matched our cognitive of the universe.



## VI. CONCLUSION

We do not believe in Big Bang [12], because we think Big Bang did not give this universe a “balance”, that means the universe is unstable. We think internal energy can transfer to matter and only matter can give a force to hold other matter. This part is not the same as dark energy. The reason we found the universe is unbalanced because the dimension version is different. Such as a ball in 3D has a center of gravity, so it can stand on the ground and be stable. But if we see the ball in 2D, then the real center of gravity could be projected everywhere. A ball that is stable in 3D is unstable in 2D, we believe our universe is the same as this ball.

---

[1] Organic Chemistry (2nd Edition), David Klein. ISBN 978-1-118-45228-8

[2] Linear Algebra (4th Edition), S. Lipschutz, M. Lipson, Schaum's Outlines, McGraw Hill (USA), 2009, ISBN 978-0-07-154352-1

[3][4] Sygne L. Relativity, the general theory. Amsterdam: North-Holland Publishing Company, 1960.

[5] Peter Atkins, Julio de Paula (2006). Physical Chemistry (8 ed.). Oxford University Press. p. 9.

[6] Einstein A. (1916), Relativity: The Special and General Theory (Translation 1920), New York: H. Holt and Company.

[7][8] [http://chemistry.osu.edu/~woodward/ch121/ch5\\_enthalpy.htm](http://chemistry.osu.edu/~woodward/ch121/ch5_enthalpy.htm)

[9] [http://en.wikipedia.org/wiki/Maxwell%27s\\_equations](http://en.wikipedia.org/wiki/Maxwell%27s_equations)

[10] [http://en.wikipedia.org/wiki/Coulomb%27s\\_law](http://en.wikipedia.org/wiki/Coulomb%27s_law)

[11] Isaac Newton: "In [experimental] philosophy particular propositions are inferred from the phenomena and afterwards rendered general by induction": "Principia", Book 3, General Scholium, at p.392 in Volume 2 of Andrew Motte's English translation published 1729.

[12] [http://en.wikipedia.org/wiki/Big\\_Bang](http://en.wikipedia.org/wiki/Big_Bang)