Definition of Space (revised)
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Abstract

The Space is Energy

This supports the claim
"There's A Relationship Between Planet Diameter And Orbital Distance"

This paper discusses and tries to prove this fact

This paper aims to support my claim against Nobel Prize Board Decision – in Physics -2018

I provided the claim reason in my previous paper

Kepler 3rd Law Explanation (a Claim Against Nobel Prize Board Decision in Physics 2018)
http://vixra.org/abs/1810.0053

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All my papers
http://vixra.org/author/gerges_francis_tawdrous
1- Introduction
All my ideas and suggested theories depend on solar planets data analysis.
For example,
When we found that "d" (Mercury orbital distance) = "r" (Mercury diameter) x 109^2, and
found that Earth and Saturn follow this same Equation perfectly
(please review this Equation in "kepler 3rd law Explanation" http://vixra.org/abs/1810.0053)

The previous data pushed me to expect that, there's a relationship between the planet
diameter and his orbital distance…. based on this expectation the following questions were
produced…
Is there a real relationship between the planet diameter and his orbital distance? How this
relationship can be created? And why some solar planets follow the Equation and other
planets don't?

The total solar eclipse phenomena supports the claim that, there's a relationship between the
planet diameter and his orbital distance…we can find this support when we answer our old
question… why we see the sun disc = the moon disc? Because (Sun diameter / Moon
diameter) = (Earth orbital distance /Earth moon distance)... why the diameters rate = the
distances rate? The usual answer was "by pure coincidence" in this case nothing can be learnt …!
But if the diameters rate = the distances rate because of a geometrical reason that will push
us to conclude that the planet matter and orbital distance must be created together as a
complementary to each other…
Theoretically how it's possible to find a relationship between the planet diameter and his
orbital distance?
Or to answer the direct questions … How the matter is created? What's the space?

We know the matter is Energy (E= mc^2), so if the matter and distance are created together as
a complementary to each other..
That means the Space also is Energy…

Let's describe that in details...
The matter is created in motion and for that the matter needs a space to move in…
That means each part of matter is connected with a part of space and the general space is
produced by summation of all these parts…

Shortly, I claim that the planet matter and orbital distance both are created from the same
energy regardless their difference in forms.

Now the solar group description will be different… because the distances between the
planets no longer be a space separates the planets from each other but becomes an Energy
trajectory…. And we know the planet matter is Energy also.. that provides 2 results:
1- The Planet mass is NOT independent but dependent on other planets data
2- The solar group is one Trajectory of Energy and each planet is a point on it.

• The previous conclusions explain the reason of the solar group motions harmony…
Let's explain the result No. 2

- The solar group is created from one Energy. This energy creates the planet matter and his orbital distance as a complementary to each other. That means the planet data is created to be suitable for the planet motion which guarantees the solar group motions general harmony.
- So the solar group is similar to a great river has many canals where these canals created soils on their banks. So the river, canals and soils all of them are created from the same water (matter and space are created from the same energy) which guarantees the motions general harmony.
- Also the solar group is similar to one machine or body and each planet is a member in this body, where all members are connected together by the same blood (the same energy)…. That makes the distances between the planets as trajectories of Energy and the planets as a store points of Energy which makes the solar group as one body.

Let's discuss the result No. 1

one of the classical mechanics pillars is the mass definition, where the mass independency is a doubtless fact! Now how we can explain this result that the mass is dependent on other planets data?


I provided an Equation defines the planet gravity based on his diameter and mass rates with the Earth… I have showed that the sun herself follows this same equation which supports my claim that the solar group is one machine or one body, each planet is a member in it.

In fact this description "the solar group is one body" shows a great importance for the planets integration and cooperation.

But if this description is correct, the planet mass can't be independent from the planets other data to support the solar planets motions general harmony.

This paper tries to prove 2 claims

1- The space is Energy
2- The planet mass is NOT independent but dependent on other planets data.

The Study Main Objective

This paper supports the main idea that the solar group is one Trajectory of Energy, and each planet is a point on this trajectory (or one body and each planet is a member in this body)

(For the question, why some planets follow the Equation d = r*109^2 but others don't? that because of Mars Immigration … review Mars Immigration Proves (Revised) [http://vixra.org/abs/1807.0268](http://vixra.org/abs/1807.0268))

2- Methodology

I use the same method in all my researches, The Planet Data Analysis…

Let's explain the idea here again

In Pythagoras triangle we found that a^2+ b^2 = c^2, this rule we can conclude from the triangle data if its dimensions are 3, 4 and 5… so the data may show the geometrical rules….similar to that, I use the solar planets data analysis to conclude the main geometrical rules which explain the solar planets origin and motion…
3- Definition of Space
3-1 Preface
3-2 Mass Definition
3-3 Earth Mass Discussion
3-4 Solar Group Masses Distribution

3-1 Preface

Space is Energy!
Is this definition clear for us?!

Energy has several forms, for example... sun light, oil, coal, wood, heat, food, electricity, magnesium, nuclear... etc.

In what form the space can be seen as energy? In a distance form!!
This is a new form! The distance is Energy...! How this idea can be acceptable ...?

In my theory of matter creation I suggested the following:-
- The solar group is created by coherence of light which we have studied in Young Experiment (Double Slit Experiment)
- The light coherence produces bright fringes and dark fringes, and I suggested that we see the bright fringes as matters but the dark fringes we see as distances..
- i.e. The solar planets are bright fringes and the planets orbital distances are dark fringes both of them are produced from the same light coherence.
- i.e. The distance is dark fringe (produced by a light coherence) and that's why the distance is Energy.
- Young Experiment tells us that, The greatest bright fringe is the middle one. This is suitable for Jupiter (the greatest planet) who locates in the solar group middle point.
- This idea I explained clearly in my previous paper ...please review Solar Group Geometrical Structure http://vixra.org/abs/1805.0081

The previous description explains to us how the distance can be energy, where the dark fringes (darkness) is energy..... that enable me to claim that all darkness we see around us are produced basically as dark fringes from Coherence of light and that explains how the space can be energy.... ...

What conclusion we can reach here? The distance is Energy

3-1-1 The distance is Energy!
Still this meaning causes a confusion...
For example ..... E=mc² tells us that E is Energy and we expect to see this energy in explosion but is it possible to produce a distance from this Equation?
Can we consider the distance as a potential energy?
To see this picture more clear we need to discuss the Mass Origin And Definition
3-2 Mass Definition

E=mc² tells us that E is energy and m is mass…. The equation tells that the mass is created from Energy…. But how? How the Bright fringes can produce the mass?!
Let's ask the main question here….

We see daily the sun rays energy….now let's ask… is the planet mass created from the sun rays energy or from another source of energy?
The question is not easy ….Because
If the mass is created from a different source of energy that will make many sources of energy in the solar group and we'll face the hard task to explain how the planets motions general harmony is produced!

I claim the solar group is created from one energy
That means all energy forms (including the mass) all of them are created from the same source which guarantees the general harmony of motions…
But
The classical mechanics tell us that the planet mass is independent from any other data and independent from any other planets masses…!
The conflict point is seen clearly and we need to know what's the truth?

Let's see the solar planets masses relationships in following
### 3-2-1 The Solar Planets Masses Relationships

1st- \[
\frac{\text{Uranus Mass}}{\text{Earth Mass}} = \frac{\text{Venus Mass}}{\text{Mercury Mass}}
\]

2nd- \[
\frac{\text{Earth Mass}}{4 \text{ Planets Masses Total}} = \frac{\text{Neptune Mass}}{\text{rest planets masses total}} = 1
\]

3rd- \[
\frac{\text{Saturn Mass}}{\text{Moon Mass}} = \frac{\text{Neptune Mass}}{\text{Pluto Mass}}
\]

(No Error)

4th- \[
\frac{\text{Jupiter Mass}}{\text{Earth Mass}} = 2 \frac{\text{Neptune Mass}}{\text{Mars Mass}}
\]

(No Error)

5th- \[
\frac{\text{Earth Mass}}{\text{Mercury Mass}} = \frac{\text{Uranus Mass}}{\text{Venus Mass}}
\]

(Error 1.5%)

6th- \[
\frac{\text{The Sun Mass}}{\text{Saturn Mass}} = 2 \frac{\text{Saturn Mass}}{\text{Mercury Mass}}
\]

(Error 1.6%)

7th- \[
\frac{\text{Jupiter Mass}}{\text{Earth Mass}} = \frac{\text{Neptune Mass}}{\text{Mercury Mass}}
\]

(Error 2.8%)

8th- \[
\frac{\text{Neptune Mass}}{\text{Inner Planets Masses Total}} = \frac{\text{Mars Mass}}{\text{Moon Mass}}
\]

(Error 2.4%)

9th- \[
\frac{\text{Inner Planets Masses Total}}{\text{PLuto Mass}} = \frac{\text{Saturn Mass}}{\text{Mars Mass}}
\]

(Error 2.4%)

10th- \[
\frac{\text{Outer Planets Masses Total}}{\text{Neptune Mass}} = \frac{\text{Mercury Mass}}{\text{Pluto Mass}}
\]

(Error 2.5%)

### The Discussion

Based on the previous relationships, I claim that the planet mass isn't independent from other planets masses and data…

In fact it's impossible to be independent from other planets data because the planets motions general harmony is performed by general harmony of the solar planets data. If this harmony isn't performed, there's no way to produce the solar planets motions general harmony…

Let's see more deep

Earth Circumference = 40080 km why? This value isn't found by pure coincidence! This value is a player in the solar geometrical structure and should be in harmony with other data to perform the solar planets motions general harmony otherwise the planets motions will have contradictions…… Kepler 3rd Law Explanation [http://vixra.org/abs/1810.0053](http://vixra.org/abs/1810.0053)

### The Conclusion

The Planet Mass can't be independent from other planets masses which support my claim that there's one origin for the whole solar group.
3-3 Earth Mass Discussion

The previous 10 equations show that there are rates between the solar planets different masses...

I showed these rates and claimed that, the planets masses are created related to each other which proves or supports the meaning that the solar group is created from one Energy...

But

Is this prove trustee?

How to understand that….? **Why the masses are created with rates to each other?** Let's discuss the Earth Mass here

Earth Mass = 59.7 x 10^{-24} kg ..... Earth Mass alone isn't distinguished...!

As Earth Circumference = 40080 km ...

But .....In comparison with other planets masses ...

Earth Mass x99% = The Masses total (Mercury + Venus+ Mars+ the Moon)

This also is similar to Earth circumference which equals 5 planets diameters total i.e.

Diameters of (Mercury + Venus+ Earth+ the moon + Mars) = Earth circumference…!

The current theories tell us that, all previous relationships are found easily by pure coincidences....

But at least I can suggest explanation for the Earth Mass Relationship....

Let's discuss it in following

3-3-1 Earth is the Great Electron

In Anderson experiment 1932 (double production), from Gamma rays 1.2 Mev, Electron and positron are created (2 particles equal in mass but different in charges)

Let's imagine that the inner 5 planets are created by this same way

4 Planets Masses total (Mercury+ Venus +Mars+ the moon) = 99% of Earth Mass

1- The Earth at one side "**The Big Electron**" i.e. the Earth atom has a positive charge in its nucleus and cloud of electrons moves around it.

And

2- The 4 inner planets "Mercury, Venus, Moon & Mars" at the other side "**The Big Positron**" i.e. their atom has a negative charge in its nucleus and cloud of positrons moves around it.

3- The difference between the Earth mass & 4 rest inner planets total Masses = **The effective bending forces to the Sun (for all 5 inner planets).**

4- So the attraction between Earth and 4 inner planets depend **On Charge Attraction** and no gravity

Please review

The Solar System Geometry (Part I)

http://vixra.org/abs/1509.0126
3-3-2 Deep Discussion

It's hard to produce the solar planets from light coherence as bright fringes and then again to produce these same solar planets by Anderson experiment (double production) as electron and positron…!
So what idea is the correct one?

I tried frequently to explain that, the solar group geometrical rules are beyond our Geometry and Physics books… and there are many new rules we need to learn to understand the solar group clearly as possible…

In my opinion, all these are features of the same geometrical structure…. There's a way to connect young experiment with Anderson experiment to produce the matter from the light beams (Gamma rays for example) But this way I can't reach now, basically because I can't consider the observer effect on the observation results…

In my previous paper
Solar Group Geometrical structure
http://vixra.org/abs/1805.0081

I suggested that, the matter is created as a result of the human mind effect on the universe around us..
That means, the matter at total is found as a result for the human mind effect!
This idea is so difficult and I can't discuss it here…. Please review the previous paper

What I want to say is..
- The solar group is created from one energy
- The solar group one energy needs a geometrical structure to guarantee the solar planets motions general harmony (to enable the energy to pass through the group)
- This geometrical structure creates the solar planets and their data to be in harmony with each other to guarantee the solar planets motions general harmony…
- Based on that, the geometrical structure defines which energy will be seen as matter and which will be seen as distance…. This geometrical structure defines the matter and distance according to the geometrical structure main job requirements…
- The Geometrical structure main job (according to my guess) is the sun creation, where the sun rays are created by the solar planets motions… that means the solar planets motions mechanical waves are transformed into light waves by the solar group geometrical structure….

That tells us, the planets matters are created to be suitable for their jobs, and that's why we found the pure coincidences of numbers… because the planet does many jobs in different levels…..

Please review
The Earth moves with Light Velocity Relative to the Sun
http://vixra.org/abs/1709.0331
3-4 Solar Planets Masses Distribution

I claim that, the solar planets masses are created from one energy. For that reason the planets masses are created depending on each other. For that reason I consider the total masses is distributed…

i.e.
solar planets total masses =2667 x 10^{24} kg …. This is the original mass which is distributed to be seen as different planets… and this mass is distributed based on the solar group geometrical rules, that's why all solar planets masses depend on each other…
in following I try to show how this total mass is distributed and based on what geometrical rules…

but in this distribution we should notice 2 important points

1- Earth and Neptune masses distribution are similar (because of their specific relationship)

2- Jupiter and Mercury masses have specific relationship

Let's see the solar group masses distribution

3-4-1 The Solar Mass Distribution

I- Data

- Solar Planets Masses Total = 2666.7 x 10^{24} kg
- This masses total is divided into 2 parts with rate 1: (3.66)^2= 200 :2467
- 2467 *10^{24} kg = Saturn Mass +Jupiter Mass
- The rest planets mass = 200 *10^{24} kg
- The rest planets mass = 200 *10^{24} kg is divided into 2 parts with rate 1: 1 (100 *10^{24} kg Neptune Mass + 100 *10^{24} kg the rest planets masses total) (error 2%)
- 100 *10^{24} kg (the rest planets masses) is divided into 88 *10^{24} kg Uranus Mass +12*10^{24}kg the rest planets masses total (error 1.4%)
- 12*10^{24} kg (The rest planets masses total) is divided into 2 parts with rate 1: 1 (6*10^{24}kg Earth Mass) + 6*10^{24} kg (Total masses of Mercury + Venus+ Moon +Mars)

The rate 1:1

We see the rate 1:1 is repeated with Earth and Neptune

Let's remember …

(I)
- Earth Circumference = 5 inner planets diameters total (with Earth) (no error)
- 2 x Neptune Circumference = 4 outer planets diameters total (without Neptune) (error 1.8%)

(II)
Earth Neptune distance x 2\pi^2 = 86400 mkm (the solar group main energy)

(III)
(Neptune Mass/ Earth Mass) = 17.2
17.2 degrees = Pluto orbital inclination
17.2 degrees = 0.99 x 17.4 degrees (inner planets orbital inclinations total)

I wish we see the specific relationship between Earth and Neptune

Which supports the claim that, the planet Mass is not independent…
3-4-2 More Discussion

The previous relationships between Earth and Neptune show that the mass distribution similarity was not pure coincidences but is done by a geometrical reason…

The main difficulty we face here is the description in the reader mind…
We consider the mass is fact and found regardless any other data… this idea is our main difficulty in the explanation…
No one asks how the mass is created? What's the origin of mass? Why there's some category in masses distribution (Earth and Venus – Neptune and Uranus – Jupiter and Saturn – Mercury and Mars)…. For current theories the mass is a magic word has no roots… it's found by no reason and has no relationship with any other data!
Just the current theory tells us that the planet orbital distance is defined based on his mass gravity with the sun..! why or how…. No one answers! And about the previous data…? No matter … any data is found by pure coincidences…..
Something unclear we get about the mass from the current theories!!

Let's write some more clear idea…
Solar group is created from one energy and this energy creates the planet mass depending on the solar group geometrical structure rules…
Now the rates between the planets masses can be explained based on this description…

Let's provide another example
Example No.2
(Saturn Mass/ Venus Mass)= 116.6
But we know that Venus day = 116.75 days…
I have no explanation why both values are very close… but I know there's a geometrical reason connect these both values together…. This conclusion I reach because of the close relationship which we have found between Venus and Saturn….let's summarize some of this relationship features in following:

1- Saturn Diameter = Venus Diameter x $\pi^2$
2- Saturn Orbital Distance = Saturn Diameter x Venus Diameter
   Saturn Orbital Distance = (Venus Circumference)$^2$
But
Saturn Orbital Distance = Mars orbital circumference = Saturn Uranus distance = Neptune orbital distance $/\pi$
Also
180 degrees = 177.4 degrees (Venus axial tilt) + 2.5 degrees (Saturn orbital inclination)

I can write many other data to support this same meaning…..
The planets data isn't found by pure coincidence but by a geometrical reason- the data which I provided here and in many other papers prove this fact clearly and strongly… and even if I'm not qualified to see the geometrical reason behind that can't disprove my claim that there's geometrical reason behind all solar planets data which are created to perform the motions general harmony
4- Earth Jupiter Distance 627 mkm

Data

**Group No. I**

Equation No. 1

The period 6939.75 seconds x \(\frac{c^2}{2} = 627\) million km

Equation No. 2

The Value 6939.75 = 2666.7 x 2.6

Equation No. 3

940 mkm = 361 degrees x 2.6

Equation No. 4

\(\frac{1}{2.6}\) mkm = 0.384 mkm

**Group No. II**

Equation No. 5

1898 x 0.33 = 627

Additional Equation No. c

102 x 5.97 = 609 (this value = 627 with error 2.8%)

**Group No. III**

Equation 7

\[
\frac{1898 \times 10^{24} \text{ kg} \ \text{Jupiter Mass}}{568 \times 10^{24} \text{ kg} \ \text{Saturn Mass}} = \frac{2088 \text{ mkm} \ \text{Jupiter Uranus Distance}}{627 \text{ mkm} \ \text{Earth Jupiter Distance}}
\]

\(d\) - 1898 km x 627km = 1.19 mkm

Equation 8

2666.7 x \(10^{24}\) kg (solar group total Masses) = 2466.7 (rate 13.4) + 200 (rate 1)
4-1 The Main Idea

Let's remember this paper main objective…….. "Space Definition"…..

What's the Space? Energy

In this point I try to show that, the space is energy…

Let's specify our discussion…

The chosen space here is a distance …… Earth Jupiter Distance 627 million km

I want to show that this distance (space) is produced as Energy…

What does that mean?

(I)

From the Equation

\[ E=mc^2 \] ….. the result will be 627 million km (Earth Jupiter Distance)

(II)

\[ M_1 \times M_2 = E \]

Where

\( M_1 \) is electron

\( M_2 \) is positron

So \( E \) is Energy…… and in this Equation also we'll find that the produced energy = 627 million km (Earth Jupiter Distance)

(III)

Because 627 million km is Energy… for that reason

The sun energy is created from this distance….

So this point tries to prove that, Earth Jupiter Distance is Energy produced by the previous 2 Equations….

And based on that, the sun is created from this same energy….

Let's start our discussion…
4-2 The Discussion of Data Group No. I

In my try to understand the solar group geometry I found that, our Geometry Science is insufficient to explain the solar group geometry where many new rules we need to learn to see much better the picture…

Let's discuss one example in following..

We know the \( E=mc^2 \) … where \( m \) = mass and \( E \) = Energy

Let's see our Equation …

Equation No.1
The period 6939.75 seconds x \( c^2 = 627 \text{ million km} \) …

How to understand this equation?

The light with \( c \) velocity (0.3 mkm/sec) needs 6939.75 seconds to cover a distance = \( 2088 \) mkm (Jupiter Uranus Distance).…

The light with \( c \) velocity also needs \( 2088 \) seconds to cover a distance = 627 mkm (Earth Jupiter Distance)

So, if we suppose that the value 2088 mkm works as 2088 seconds for some geometrical reason, that makes Equation No.1 consistent

But what does Equation No.1 tells us?

\( mc^2=E \)….! 6939.7 seconds is a period and NOT mass where 627 mkm is a distance and NOT Energy (my hypothesis is …….. Distance = Energy)

How can we understand this Equation?

Let's see Equation No.2

Equation No.2

\[ 6939.75 = 2666.7 \times 2.6 \]

Let's define the previous values

- 6939.75 seconds are needed for light (\( c \) velocity) to cover Jupiter Uranus Distance 
- 2088 mkm, and also 6939.75 days is Metonic Cycle…
- \( 2666.7 \times 10^{24} \text{ kg} \) = the Solar Planets Masses Total

Note Please

In all Masses Equations the factor \( 10^{24} \) is the main problem, till now I didn't solve it. so I have to ignore it in my discussion till we reach to the general accurate description…

What does Equation No.2 tell us?
The Solar Planets Total Masses \( 2666.7 \times 10^{24} \text{ kg} \) can be seen as Metonic Cycle Period (or light travel period ) Based On The Rate 2.6

The Masses total is seen as a period of time…. This idea isn't very strange because we know mass = Energy and distance = Energy where I claimed that the time and distance values can be equivalent in some solar planets data (this equivalence I claimed is found because of high velocity motion – please review the time definition http://vixra.org/abs/1805.0523)

Shortly

The solar group is created from one energy, where the mass and distance both are created from the same energy. So the energy is seen by us as masses or as distances but we know that the time and distance values sometimes can be equivalent… that's why the Masses can be seen as a period of time…

The masses value is seen as a period of time based on this rate 2.6 and what's this rate?
4-3 The Rate 2.6

I- Data ....Equation 3 and 4
3- 940 mkm = 361 degrees x 2.6 mkm
4- 1/2.6 mkm = 0.384 mkm ……Please Note also the following
   a- 180 degrees = 177.4 degrees (Venus axial tilt) +2.6 degrees
   b- 2.58 mkm (Earth daily velocity) x 6939.75 days (Metonic Cycle Period) = 18000 mkm (Uranus orbital Circumference)

II- Discussion

2.6 isn't just a number
This value defines Earth and moon interactive motions ..
Venus axial tilt needs 2.6 degrees to be 180 degrees …
And we know that …….1 degree = 1 mkm
So 2.6 degrees = 2.6 mkm ……..But
1/2.6 mkm = 0.384 mkm (Earth Moon distance in average orbit radius)
That tells us the moon defines his position from Earth based on the value 2.6 mkm

Equation No. 3
940 mkm (Earth orbital Circumference) = 361 degrees x 2.6 mkm
Equation No. 3 tells us that, if Earth revolution around the sun is divided by 361 degrees,
each 1 degree will equal 2.6 mkm ... now we can see that the rate 2.6 expresses a
relationship between Earth and Venus, by this relationship the Moon is created (with
Support from Uranus!)…. That supports my claim "the moon belongs to Venus and Earth".
(For example the moon orbit regress 19 degrees yearly.. but 19 degrees = 2π *3.02 degrees,
where Venus daily motion =3.02 mkm)
Any way Equation No.3 tells us one more important information that, the Earth revolution
total degrees aren't 360 degrees but 361 degrees and why?
Because 19 degrees (the moon orbit regresses yearly) x 19 sidereal years = 361 degrees
(total degrees of Metonic Cycle)…
That means Earth rotates Metonic Cycle with her moon but this Cycle isn't seen in Earth
motion (unknown reason till now) but the Cycle is seen in the moon motion…!

Equation No. b
2.58 mkm (Earth daily velocity) x 6939.75 days (Metonic Cycle Period) = 18000 mkm (Uranus orbital Circumference)
Shortly Earth moves during Metonic Cycle a distance = Uranus Orbital Circumference… in
my previous paper "Does The Moon move by Gravity?" http://vixra.org/abs/1810.0089 I
explained the strong relationship between the Moon and Uranus which tells us that Earth
rotates in fact Metonic Cycle.

The conclusion
Metonic Cycle effects on more than one planet motion (Moon, Earth and others), that
because… Metonic Cycle Period (in days) is born from the light travel period (in seconds)
from Jupiter to Uranus, and this period is the energy which causes Metonic Cycle from
which The solar planets Masses total is found depending on Earth-moon interactive motions
(the rate 2.6) …
Shortly…. E=mc² this equation control our Equation 6939.75 seconds x c² = 627 mkm
Where …6939.75 seconds expresses the solar planets total Masses
627 mkm expresses the resulted energy (distance = energy)
4-4 The Discussion of Data Group No. II
5- 1898 x 0.33 = 627
Also
c- 102 x 5.97 = 609 ( =627 with error 2.8%)

In my paper (solar Group Geometry Part I http://vixra.org/abs/1509.0126)

I have discussed the following fact:
Earth mass = 4 planets total masses (Mercury + Venus +Moon +Mars)
in fact 4 planet masses = 99% of Earth Mass)
And I have asked why…? We may remember Anderson experiment which produced
electron and positron from Gamma rays (1.2 mev) (2 particles equal in mass and different in
charge)
Let's imagine that the 5 inner planets are produced from great Gamma rays, which produced
one great electron (Earth) and one great positron (Mercury+ Venus+ Moon + Mars)

What does mean the great electron?
Earth atom has a positive nucleus and negative charges move around
But what does mean the great positron?
The 4 inner planets atoms have a negative nucleus and positive charges move around…
Now the attraction between the 5 inner planets depend on the charges attraction and not on
the gravity…
Based on this old description let's try to understand the previous equations…

Equation No. 5
1898 x 10^{24} \text{kg (Jupiter Mass)} x 0.33 x 10^{24} \text{kg (Mercury Mass)}= 627 x 10^{48} \text{kg}
I ignore the factor \text{10}^{24} …!! And then the Equation will be
1898 x (Jupiter Mass) x 0.33 (Mercury Mass)= 627 (Earth Jupiter distance =627 mkm)
M1 x M2 = E
We know if electron collide with positron the result will be Energy….!
We have 2 masses collide with each other and the result is the same distance 627 mkm
I understand that the factor \text{10}^{24} effects greatly in the equation explanation, but we may
consider that as units configuration.. for example 627 is million km and not km… that
means the factor \text{10}^{24} may be consumed in unit configuration process.
So equation no.5 tells us that 2 solar planets masses collision produced this distance 627
mkm which we should consider as Energy…

I wish the reader sees that we use 2 physical equations (E=mc^2 and E= m1m2) and we reach
to the same distance 627 mkm … I see some support for my claim spite of its difficulty..

Equation No. c
102 * 10^{24} \text{kg (Neptune Mass)} x 5.97 * 10^{24} \text{kg (Earth Mass)} = 609 ( =627 with error 2.8%)
Spite of the great error…
I see the same distance is produced…
I wish the reader sees with me that the planet data gives us one clear direction.
Yes I don't know the geometrical structure which is behind all this data but I can see easily
that this data is produced related to each other and not independent which supports the main
idea that the solar group is one trajectory of Energy…

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4-5 The Discussion of Data Group No. III

Equation No. 7

\[
\frac{1898 \times 10^{24} \text{kg}}{568 \times 10^{24} \text{kg}} \times \frac{\text{Jupiter Mass}}{\text{Saturn Mass}} = \frac{2088 \text{ mkm}}{627 \text{ mkm}} \times \frac{\text{Jupiter Ur anus Distance}}{\text{Earth Jupiter Distance}}
\]

d- 1898 km x 627km = 1.19 mkm

Equation No. 8

\[
2666.7 \times 10^{24} \text{kg} \text{ (solar group total Masses)} = 2466.7 \text{ (rate 13.4)} + 200 \text{ (rate 1)}
\]

Equation No. 7

We have studied the distance 2088 mkm (Jupiter Uranus Distance) frequently, and we know that this distance is Metonic Cycle energy source where the light with c velocity needs 6939.75 seconds to pass from Jupiter to Uranus… And we have studied in Equation no.1 (627 mkm = 2088 seconds x c velocity), that means both distances are important and related to each other strongly

But

What does Equation No. 7 tell us?
Equation 7 tells us that, Jupiter mass/ Saturn Mass = distance 2088 / distance 627… but we know that the distances 2088 and 627 are related to each other strongly

Does that mean Jupiter Mass and Saturn Mass are related to each other?
Let’s see Equation No. 8

Equation No. 8

\[
2666.7 \times 10^{24} \text{kg} \text{ (Solar Planets Total Masses)} = 2466.7 \text{ (rate 13.4)} + 200 \text{ (rate 1)}
\]

2666.7 x 10^{24} kg = (Solar Planets Total Masses)

2466.7 x 10^{24} kg = Jupiter Mass + Saturn Mass (rate 13.4)

200 x 10^{24} kg = rest planets masses total (rate 1)

What does that mean?
The solar planets masses total 2666.7 is divided into 2 parts by rate 13.4 to 1
The rate 13.4 produced the value (2466.7 x 10^{24} kg = Jupiter Mass + Saturn Mass) and the rate 1 produced (200 x 10^{24} kg = the rest planets masses total)

Why this rate 13.4 is important?
Please review my paper Solar Group is one machine http://vixra.org/abs/1808.0081
Where I classified the solar planets data into 5 rates which are (1.392/1.9/3.66/13.4/179.56) (A, A^2, A^3, A^4, A^5)
Which means, the masses are divided according to other data division rate…
Which proves that the mass isn't independent from the other planets data
5- The Energy \( E = 627 \text{ mkm} \)

I- Data

9- \( E = 627 = 227.9 \text{ mkm} \times 2 \times 1.3756 \text{ mkm} (=99\% \text{ of the sun diameter 1.392 mkm}) \)

10- Lunar umbra length = the sun diameter

**Equation No.9**

\[ E = 627 \text{ mkm} = 227.9 \text{ mkm} \times 2 \times 1.3756 \text{ mkm} (=99\% \text{ of the sun diameter 1.392 mkm}) \]

Where

227.9 mkm = Mars orbital distance

1.392 mkm = the sun diameter

What does Equation No.9 tell us?

The sun diameter is created based on the distance 627 mkm (Earth Jupiter Distance) by using Mars orbital distance 227.9 mkm… why?

I don't know…. But we know that Mars axial tilt 25.2 degrees is the constant in kepler 3rd law table… let's remember it here again …

If we use Kepler 3rd Law for the solar group data, we will find the following table

\[ P^2 \times 25 = d^3 \text{ (Kepler 3rd Law)} \]

- \( P \) : The Planet orbital period
- \( d \) : The Planet orbital distance
- 25.2 degrees : Mars Axial Tilt

The results are shown in the following table

<table>
<thead>
<tr>
<th>Planet</th>
<th>( P )^2</th>
<th>( P^2 \times 25 )</th>
<th>( d^3 )</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury</td>
<td>(88)^2</td>
<td>(57.9)^3</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>Venus</td>
<td>(224.7)^2</td>
<td>(108.2)^3</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>Earth</td>
<td>(366)^2</td>
<td>(149.6)^3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mars</td>
<td>(687)^2</td>
<td>(227.9)^3</td>
<td>0.3%</td>
<td></td>
</tr>
<tr>
<td>Jupiter</td>
<td>(4331)^2</td>
<td>(778.6)^3</td>
<td>1.4%</td>
<td></td>
</tr>
<tr>
<td>Saturn</td>
<td>(10474)^2</td>
<td>(1433.5)^3</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Uranus</td>
<td>(30589)^2</td>
<td>(2872.5)^3</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Neptune</td>
<td>(59800)^2</td>
<td>(4495.1)^3</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>Pluto</td>
<td>(90588)^2</td>
<td>(5870)^3</td>
<td>1.4%</td>
<td></td>
</tr>
</tbody>
</table>

**Comment:**

The previous table I used many time in my papers, I have no explanation why Mars Axial Tilt is the constant in Kepler 3rd Law..

Some people told me I use wrong units to reach this result! I use million km for distance and day for periods.. why these are wrong units?!

**For Mars full discussion please read**


Mars axial tilt is the constant in the table, and Mars data importance can be more clear by revision of my paper

Equation No. 10

Lunar umbra length = The Sun Diameter
Lunar umbra is found in the distance between Earth and Mars…
Let's summarize the whole idea in following

The distance 627 mkm (Earth Jupiter distance) is produced as Energy from many different equations…
The sun diameter is created based on this distance 627 mkm

Earth, Mars, Jupiter and Uranus with the moon are the main players in the sun production process
That's why each planet has specific relationship with the sun
  ● The sun diameter = Jupiter diameter xπ² (error 1.4%)
  ● The sun circles Earth to complete the cycle in 365.25 days (Earth orbital period)
  ● 63.7 degrees (sun declination) = 25.2 degrees Mars axial tilt x 2.5 degrees (Saturn orbital inclination) (note Mars orbital circumference = Saturn orbital distance)
  ● Lunar Umbra length = The Sun diameter (the umbra locates between Mars and Earth)

Author Other Papers

Does The Moon move by Gravity?
http://vixra.org/abs/1810.0089

Kepler 3rd Law Explanation (a Claim Against Nobel Prize Board Decision in Physics 2018)
http://vixra.org/abs/1810.0053

Metonic and Saros Cycles Harmony Reason
http://vixra.org/abs/1809.0559

The Solar Group Main Equation (Part 2)
http://vixra.org/abs/1809.0468

The Solar Group Main Equation
http://vixra.org/abs/1809.0186

The Solar Group Main Energy
http://vixra.org/abs/1809.0152

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