Abstract

This Paper discusses and proves the following hypothesis:

**Light Is An Essential Player In The Matter Creation Process**

Please read

Why Jupiter Diameter =142984 km (Part 2)? (Revised)
http://vixra.org/abs/1907.0321

Why Jupiter Diameter =142984 km?
http://vixra.org/abs/1907.0137

The Unit Definition Is Relative
http://vixra.org/abs/1906.0379

Special Theory Of Relativity (Questions For Discussion)
http://vixra.org/abs/1906.0008

There's A Light Beam Travels With 1.16 mkm per sec (My Claim)
http://vixra.org/abs/1904.0236

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1- Introduction

I- Data

(Group No.1)

<table>
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<th>Uranus Diameter</th>
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(Group No.2)

- Mercury Diameter $\times 10^2 = \text{Mercury Orbital Distance}$
- Earth Diameter $\times 10^2 = \text{Earth Orbital Distance}$
- Saturn Diameter $\times 10^2 = \text{Saturn Orbital Distance}$
- Earth Moon Diameter $\times 10^9 = \text{The Moon Orbital Distance}$

(Group No.3)

- $300000 \text{ km (light motion for 1 second)} = \text{Mercury Diameter} \times 2\pi^3 (1\%)$
- $300000 \text{ km (light motion for 1 second)} = \text{Earth Diameter} \times 23.4$
- $300000 \text{ km (light motion for 1 second)} = \text{Saturn Diameter} \times 2.5$

Note

23.4 degrees = Earth axial tilt
2.5 degrees = Saturn Orbital Inclination

(Group No.4)

Saturn Diameter – Jupiter Radius = Neptune Diameter $\times 0.99$ (No Error)
(This is Equation No.7 in Paper "Why Jupiter Diameter = 142984 km Part No.1)

II- Discussion

Based on the previous Equation No. 7 I have suggested that – Saturn Diameter is created from Jupiter Diameter by Neptune Help…
The question is… how any planet diameter can be created be effect of any other? Practically …What connects any 2 matters found at distance from Each Other?

In all my papers I didn't fight against any theory? rather I have fought hardly against The Wrong Descriptions….
How do we consider the matter? What's the matter nature and how the matter is created?

The Classical Description tells us that…

- The matter (mass) is a fact found without any known procedures or measurements
- Simply we don't know why any planet diameter equal its value?- the matter is found as a miracle has neither reasoning explanations nor geometrical reasons…
- The Space is the Sea which prevents any matter to reach to any other matter- and Now the romantic life will be seen!!

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- Even – someone tells that – the space can't be created at all – because the space is nothingness and nothingness can't be created...by this idea .... The sky should be as a paper and the artist will draw the heavenly bodies on this paper...!

- To see the light – we need to return to the logic before to be lost is the endless darkness...! to create any thing you need some stuff ... So from what stuff the space is created ...from Energy it's my answer (my hypothesis) .... The matter also is created of Energy ... this is almost proved by the Equation E=mc²...

So...
- If the Matter = Energy and Space = Energy .... Also we know that... the light is Energy... Simply that means .... Light Connects All Players Together... the previous data can support easily this claim...

Now what we have in our hands? What conclusion we may reach here?

**Basic Conclusion**

**Light effects On The Matter Creation Process**

This conclusion is our task in this paper to prove...

Shortly

This paper tries to prove that ....

**The Light Is An Essential Player In The Matter Creation Process**
2- Methodology

(I) - I use the planet data analysis as a research method – I try to conclude the geometrical rules based on which the planet data is created (Planet Data means Planet Diameter, Mass, Orbital Distance, Orbital Inclination, Axial Tilt...etc)
- I use NASA Planetary Fact Sheet (http://nssdc.gsfc.nasa.gov/planetary/factsheet/)

Why The Planets Data Analysis can help us to discover solar group geometrical rules and description?
As in Pythagoras rule
Suppose we have a right triangle its dimensions are 3,4 and 5 meters (for example)
So by analyzing these 3 dimensions we may reach to Pythagoras Rule $(z^2= x^2+y^2)$
So The planets Data analysis is useful to discover the unknown geometrical rules

(II) I depend on The Data Direction

What does mean The Data Direction?

Let's use an example to explain that in following:

Example

\[
\frac{25.2 \text{ Mars axial tilt}}{23.4 \text{ Earth axial tilt}} = \frac{26.7 \text{ Saturn axial tilt}}{25.2 \text{ Mars axial tilt}} = \frac{28.3 \text{ Neptune axial tilt}}{26.7 \text{ Saturn axial tilt}} = 1.0725
\]

I have tried to explain this equation before- nevertheless - let's try to conclude the basic idea behind this equation

What can we conclude here?
There's A Dependency Between these 4 Planets Axial Tilts

Someone will claim that's "Pure Coincidence"! but we see it's somehow difficult to accept the same pure coincidence three times

So we have to conclude that there's some relationship between these planets axial tilts
So- the Equation explanation is hard – but The Data Direction is clear- the direct conclusion is "There's A Relationship Between These Planets Axial Tilts"

let's see the next equation..

\[
\frac{115.2 \text{ Mars axial tilt}}{113.7 \text{ Earth axial tilt}} = \frac{116.7 \text{ Saturn axial tilt}}{115.2 \text{ Mars axial tilt}} = \frac{118.3 \text{ Neptune axial tilt}}{116.7 \text{ Saturn axial tilt}}
\]

The Previous equation supports The Same Data Direction –it tells – there's a deep relationship between These Planets Axial Tilts – and this relationship is seen between these planets axial tilts on the horizontal level as well as on the vertical level.
3- Light effects On The Matter Creation (The Moon Creation As Example)

3-1 Preface
If the matter is created by light effect – How the matter can be found in darkness?

What's the darkness?
Young Experiment (Double Slit Experiment) tells us that – the light coherence produces bright fringes and dark fringes….

Young Equation

\[ \Delta y = \frac{L\lambda}{d} \]

Where
L The distance between the slit and screen,  d the slit separation and (lamda) is the wavelength of light

Imagine that – the fringes (bright and dark) width is so huge and we live inside one of these dark fringes- so the darkness around us is Not the light absence but the darkness is a result of light coherence (this information was known by Newton also)

That means–the light can effect on the matter in light & in darkness equally.

Can the light be a real factor in the matter creation process?

Once again we here discuss the direct observational results which be acceptable without deep analysis…. The observer eyes see the matter in the sun light and consider that- the matter is something different from the sun light … the observer feeling that – the interaction between light and matter is occurring only at the tangent points between both… as we distinguish between the see and a fish living in it and we consider both of them are different from each other..!
But if a beam of sun rays dropped inside a cup of liquid and the light color changed inside the liquid we don't consider both beams of light are 2 different beams – on the contrary - we know they are just one light beam suffering from some change in the cup liquid… the light nature is the point in which we can find the measurements and rules based on which the matters are created…
3-2 Moon Creation Discussion (Part 1)

I- Data

i. The Moon Circumference 10921 km x 27.3 days = 300,000 km

ii. The Moon Circumference 10921 km x 86400 seconds = 940 million km

iii. 43000 km x27.3 days = 1.16 million

iv. (300000 km = 1 second of light motion)

Old Data (Revision)

v. The Sun Diameter x The Moon Diameter = Jupiter Orbital Circumference

vi. Jupiter Circumference x the Moon Circumference = Jupiter Orbital Circumference

vii. Mars Circumference x The Moon Circumference = Mars Orbital Distance

viii. 43000 km x The Moon Diameter = Earth Orbital Distance

(Apogee Radius 0.406 mkm – Apohee radius 0.363 = 43000 km – so this is the distance which the moon can pass from perigee point to apohee point – so we can call it – the moon motion freedom distance)

ix. Venus Diameter x The Moon Diameter = Earth Venus Distance

II- Discussion

The light effect on the matter creation is shown clearly in the moon creation … Let's discuss the first 4 equations in following:

Equation (i)
The Moon Circumference 10921 km x 27.3 days (Moon Orbital period) = 300,000 km

(300,000 km = 1 Second Of Light Motion)

Equation (i) tells us

If the moon rotates around his axis a complete Cycle once daily – so the moon will pass -during his actual orbital period 27.3 days – a distance = **Light Motion Distance For 1 Second Period**

Equation (ii)
The Moon Circumference 10921 km x 86400 seconds (solar day) = 940 million km

(940 mkm = Earth Orbital Circumference)

Equation (ii) tells us

If Earth revolves around the Sun a complete revolution on one day only – so the moon circumference will be = **A Distance Of Earth Motion For 1 Second Period.**
Equation (iii)  
43000 km \times 27.3 \text{ days (Moon Orbital Period)} = 1.16 \text{ million (error 1\%)}  
Where  
(A)  
43000 \text{ km} = \text{The Lunar Orbital Distance from perigee radius (363000 km) to apogee radius (406000 km) – where the moon can move only from Perigee to Apogee that means the value 43000 km = The Moon Motion Freedom Distance}  
(B)  
1.16 \text{ mkm} -  
We have studied this value - when I have supposed that – there's a light beam travels with velocity 1.16 mkm /sec – this is my hypothesis – which we have discussed deeply in paper  
(Why Jupiter diameter \text{ =142984 km? part 1}) \text{ http://vixra.org/abs/1907.0137}  

Equation (iii) tells that  
The light beam of velocity 1.16 mkm provides the moon an energy = \text{1 Second period} of this light motion (1.16 million km) – And the moon uses this energy to create his motion freedom distance (from perigee to apogee =43000km) with his orbital period (27.3 days) – means the distance 43000 km and the period 27.3 days both are components of \text{One Energy} provided by light beam motion for \text{1 second} where this light beam velocity =1.16 mkm/sec.  

\textbf{Note}  
The Moon is related to the energy of 1 second for 3 times in the pervious explanations – which may support that the moon creation is related to a light beam energy with help of a unit of time –  

\textbf{Comment}  
Why \text{1 second period} is used frequently in the previous moon equations?  
Let's provide some more data in following  
- Earth moves daily a distance =2.58 \text{ mkm} = \text{the moon motion daily}  
- \text{The Moon Orbital Circumference for apogee radius } =2.58 \text{ mkm}  
Why the previous values are equal?  
Why the moon orbital circumference = the distance Earth moves daily= the distance the moon moves daily? How to understand that…?  
The previous example – tries to modify the time definition in our minds –where the observer sees the moon moves and thought the moon orbital circumference is found independently from The Earth & Moon Motions – while the fact is that – the moon orbital circumference is created because of the Earth motion (or the moon motion because both are equal) \textbf{FOR ONE DAY} – the time here is not the clock at our hands by which we account the runner period of motion – not true – the time here – defines the runner motion trajectory and create this trajectory to be a motion trajectory before our eyes – that means the time isn't independent from the matter (and space) creation processes.
Equation (iv)

<table>
<thead>
<tr>
<th>Uranus Diameter</th>
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</table>

Where
- (300000 km = 1 second of light motion)
- Moon Orbital Diameter (Total Solar Eclipse) = 2 x Saturn Circumferences

How can we understand the previous equation…?
Equation (iv) tells something very important…
The equation supports the same meaning we have discussed in the previous point.

The sun circumference isn't found because of the inner interactions whatsoever
Not true
The sun circumference is found because….
The light travels in one second a distance =300000 km ….
The time is the question…..? what's the time? What is the relationship between the
time and light velocity (known velocity 0.3 mkm/sec)?

The previous Equation tells us very important 2 information:
1- The Planets Diameters Are Created Relative To Each Other – And We
   Know This Idea.
2- The Planets Diameters Are Created Relative To Each Other For A
   Specific Period Of Time…

The time here is a solar system builder and we see the solar system in this vision
because of the time –
Let's try to examine this idea more deeply…..again Why
The moon orbital circumference at apogee radius = Earth daily motion = the moon
daily motion? Try to find some answer…
- The moon moves a distance 2.58 mkm = Earth motion daily otherwise they will
  be separated from each other – suppose the distance is energy – the moon moves
  2.58 mkm and this is energy issued from the moon to the space – imagine this
  energy as a vapor we can see its motion –
- Now – let's return to Einstein rock which he left to drop from the train – Einstein
  saw the rock motion trajectory as a straight line but the people on platform saw it
  as parabola – that's the moon moves a distance = Earth motion daily and in the
  same manner but because the moon moves and (we don't!) we see the moon
  motion (which is a straight trajectory) as a parabola which we see in the moon
  orbital circumference form – so the moon orbit is created by energy spent by
  yesterday motion – and the moon orbit tomorrow will be built by energy of moon
  will be done today…..etc
- I don't confirm that's what real happening – I try to show how the time can be a
  builder for the solar system geometry.
3-3 Moon Creation Discussion (Part 2)

As usual the previous data is considered as "pure coincidences of numbers" which have no any effect on the moon creation nor its motion…

In this part of discussion – we discuss Earth & Moon Motions Interaction, trying to discover if the previous data was found really based on Pure coincidences…

I-Data

6939.75 days (Metonic Cycle)

= 19 x 365.25 days (Earth Orbital Period)
= 20 x 346.6 days (Nodal Year)
= 235 x 29.53 days (Lunar Synodic Month)

6585.39 days (Saros Cycle)

= 19 x 346.6 days (Nodal Year)
= 223 x 29.53 days (Lunar Synodic Month)
= 241 x 27.32 days (Lunar Sidereal Month)

- Earth Orbital Period is performed based Earth Motion
- Nodal Year is Performed by the moon orbit regression (motion) yearly
- Lunar Synodic and Sidereal Months are performed by the Moon Motion

The Simple question

Why These 3 Motions Are In Harmony And Finish Complete Cycles On The Same Date?

The answer is known…… "Pure Coincidences" ….. here the pure coincidences aren't in numbers rather in motions!

Now let's see the Earth and moon motions interaction as deep as possible

Earth Moon Motions Interaction:

(The motions interaction may shows a harmony found because the Earth is created of light as similar as the moon himself)

We can see that Earth and Moon Motions are in harmony beyond the direct observational results – let's examine that in detail as following:

- Earth Daily moves 0.9856 degrees
- The Moon Daily moves 13.18 Degrees
- The moon revolves a full revolution around Earth with 360 degrees – in 27.3 days
- Earth during 27.3 days moves 0.9856 x 27.3 degrees = 26.9 degrees (of Earth Motion… Please Note)
- We remember that the moon moves daily 13.18 degrees (of the moon motion)
- So 26.9 degrees of Earth Motion = 13.18 degrees of the moon motion x 2.2
- The previous explanation proves that – Earth and Moon motions are done on the same scale of degrees – they are NOT 2 different bodies move relative to each other – they are one body moves relative To The Same Ruler Of Degrees …
- I wish the previous explanation is stronger than any pure coincidences claim
3-4 Moon Creation Discussion (Part 3)

(Metonic Cycle Analysis)

I-Data

Group No. 1

(a)  
6939.75 seconds  x 0.3 mkm/sec light velocity = 2088 mkm (Jupiter Uranus Distance)  
97.8 seconds  x 0.3 mkm/sec light velocity = 29.37 mkm  
97.8 second  x 1.16 mkm/sec = 113.45 mkm  
97.8 degrees = 122.5 deg. (Pluto axial tilt) x 0.8 deg. (Uranus orb. Inclination)

(b)  
6939.75 = 97.8 x 71 = 5040 x 1.392  
6939.75 days = 58.66 days x 118.3 degrees  
6939.75 days = 243 days x 28.6363

(c)  
- During Metonic Cycle Mercury moves a distance = Neptune orbital circumference  
- During Metonic Cycle Earth moves a distance = Uranus orbital circumference  
- During Metonic Cycle Saturn moves a distance = Mercury Pluto Distance  
- During Metonic Cycle Pluto moves a distance = Mercury Uranus Distance

(d)  
97.8 degrees x 1.8 degrees = 175.94 degrees²  
1.8 degrees x 0.8 degrees = 1.44 degrees²  
86400 x 2 = 6939.75 x 25.2 (error 1%)  
86400 = 5040 x 17.14  
3.02 x 2Π = 19

I-Discussion

The previous data can't be explained except if we deal with a light beam.  
The difficulty here can't be explained easily…  
because of our classical unit definition… we know clearly what's the meter – what's the hour – and what's the degree…so If I supposed that 1 million km = 1 hour no one accepts such idea….! Why not?  
The solar group is a machine – and each planet is a gear in this same machine- we create our definition based on the stable final result – for example – we know what's the solar day because of the sunrise and sunset daily- but this process is done based on the gears motions –Now If I live on some other place so the solar day will be seen from different point of view – for example – the solar day may be = 2.58 mkm – but from my position I can't see the period 86400 seconds but I see instead the distance 2.58 mkm – to reach to better understanding let's explain the real data.
Equation No. (a)

6939.75 seconds  x 0.3 mkm /sec light velocity = 2088 mkm (Jupiter Uranus Distance)
97.8 seconds  x 0.3 mkm /sec light velocity = 29.37 mkm
97.8 second  x 1.16 mkm/sec =113.45 mkm

The light with known velocity 0.3 mkm travels from Jupiter to Uranus (2088 mkm) in a period = 6939.75 seconds – Now The Earth Moon rotates Metonic Cycle 9639.75 days – I claim that – the light motion energy is transported into the moon motion – now the moon moves after the light motion but with different rate of time – what the light passes in 1 second the Moon passes in 1 day – this change of the rate of time is done because the solar group is a group of gears all of them works together and they transformed the 1 second into 1 day...
I see – it's somehow an imaginary idea – so we need to see the trajectory through which the light energy is transported to the moon motion....

97.8 seconds  x 0.3 mkm /sec light velocity = 29.37 mkm
The energy is transported into 97.8 degrees (Uranus Axial Tilt)
Based on this description – Uranus defines its axial tilt
Where
2872.5 mkm (Uranus Orbital Distance) = 97.8 x 29.37
The geometrical mechanism is still far to reach – but the data supports us strongly

Note please
2872.5 mkm (Uranus Or. Dis.) = 97.8 x 29.37 = 0.3mkm/sec x (97.8)^2

Equation No. (b)

6939.75= 97.8 x 71 = 5040 x 1.392
6939.75 days = 58.66 days x 118.3 degrees
6939.75 days = 243 days x 28.6363

We can understand the previous equations only if
- We consider there's a velocity v=0.99 c (light velocity) is found in the solar group
- This velocity v=0.99c will cause length contraction effect with the rate 7.1 – the equations can be understood as following:

6939.75 mkm = 7.1 x 97.8 mkm
The equation tells that the distance 6939.75 mkm is contracted by rate 7.1 to produce a distance 97.8 mkm – and because
(1) The Solar Group Is One Machine And Each Planet Is A Gear In It
(2) Mercury Orbital Circumference =360 Mkm =360 Degrees – So 1mkm=1degree – That Means The Value 97.8 Mkm =97.8 Degrees = Uranus Axial Tilt (i.e. Uranus axial tilt is produced as contracted from 6939.75 mkm)
(c) 
97.8 degrees x 1.8 degrees = 175.94 degrees$^2$
1.8 degrees x 0.8 degrees = 1.44 degrees$^2$
- 1.8 deg. (Neptune Orbital inclination) x 0.8 deg. (Uranus Orbital inclination) = 1.44 degrees$^2$ (Moon Orbit Regresses Monthly 1.44 Degrees)
- 97.8 deg. (Uranus Axial Tilt) x 1.8 deg. (Neptune Orbital inclination) = 175.94 degrees$^2$ (Mercury Day Period = 175.94 Solar Day)

The Previous 2 equations – tell that the interaction between Uranus and Neptune created 2 values at least in the inner planets – it creates the Earth moon regression yearly and Mercury day period.

**Note Please**

Why Uranus axial tilt =97.8 degrees?
(1) I suppose that Uranus is perpendicular on the Earth Moon orbit -
(2) That means- if Uranus axial tilt effects on the moon orbit he needs 90 degrees to overcome the perpendicular position (97.8-90)
(3) So the effective value on the moon orbit =7.8 degrees and this value = 7deg. (Mercury orbital inclination) + 0.8 deg. (Uranus orbital inclination) – that means Uranus and Mercury unified together to create Earth Moon Orbit (not only because Earth and Venus also cooperated in to create it) -

(d)
- During Metonic Cycle Mercury moves a distance = Neptune orbital circumference
- During Metonic Cycle Earth moves a distance = Uranus orbital circumference
- During Metonic Cycle Saturn moves a distance = Mercury Pluto Distance
- During Metonic Cycle Pluto moves a distance = Mercury Uranus Distance

The Previous Equation tells that – Metonic Cycle Period is some important period and many planets work as players according to this same cycle- how can we understand that? Only if the light beam is the solar planets creation essential player by such way the planet mass (matter) and Space (orbital distance) can be created from the same source and the harmony –which we see in the planets general motions – can be found also in every part of the solar group data.
4- Light Motion For 1 Second

4-1 Light Motion for 1 second
4-2 Why Jupiter Diameter =142984 km?

4-1 - Light Effect On The Matter Creation

I-Data

(Group No.1)

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(Group No.2)

- Mercury Diameter x 10^9 = Mercury Orbital Distance
- Earth Diameter x 10^9 = Earth Orbital Distance
- Saturn Diameter x 10^9 = Saturn Orbital Distance
- Earth Moon Diameter x 10^9 = The Moon Orbital Distance

(Group No.3)

- 300000 km (light motion for 1 second) = Mercury Diameter x 2\pi^3 (1%)
- 300000 km (light motion for 1 second) = Earth Diameter x 23.4
- 300000 km (light motion for 1 second) = Saturn Diameter x 2.5

Note

23.4 degrees = Earth axial tilt
2.5 degrees = Saturn Orbital Inclination

I-Discussion

Group No. 1 will be discussed with the moon creation process (point no.4)

Groups No. 2 and 3

Tell us important information

(1) The Solar Planets which have direct relationship with the light motion for 1 second – these same planets have direct relationships with their orbital distances – in all cases it's difficult to consider the previous groups of data (2 and 3) are found as pure coincidences of number – specifically because they define the same 3 planets in the same one direction – simply it's acceptable geometrical rule has no doubt…

(2) Groups Data No. 2 & 3 support strongly the claim "The matter creation is effected by the light velocity" or "light is essential player in matter creation process"

Please Note

(1) For Mars...(300000 km = Mars Circumference x (moon orbital inclination)^2/ Mars orbital inclination – this equation explains why 687 days (Mars orbital period = 25.2 Mars axial tilt x 27.3 days (moon orbital period) – but I don't use Mars here because his orbital distance 1433.5 mkm doesn't follow the equation (D=Rx10^9^2)- So Mars is related to the light motion distance for 1 second but it's exceptional for our equation (2) for the moon …. The moon uses 109 instead of 109^2 because his orbital around Earth and not the sun – now the sun diameter = 109 x Earth Diameter which explains many categories in this same equation...
4-2 Why Jupiter Diameter =142984 km

I- Data

In the figure
- The two near bodies are the Earth and Moon
- The far body is the sun
- Angle $\theta =0.142984$ degrees

$$\sin \theta = \frac{\text{Earth Moon Distance}}{\text{Earth Orbital Distance}}$$

0.3 mkm light velocity x (0.142984 second) = **43000 km**

(moon orbit radius at apogee 0.406 mkm- moon orbit radius at perigee0.363 mkm = 43000km- means the moon can move freely only from perigee to apogee i.e. the value 43000 km is the moon motion freedom distance)

**Note**
(1) The value 43000 km supports the claim that – Jupiter effects on the moon orbit
(2) The Value 43000 km is important because Angle $\theta$ is defined by the moon & Earth distances to the sun and to each other…
(3) based on Angle $\theta$ Jupiter Diameter is Created

That may help to explain the following table

<table>
<thead>
<tr>
<th>Table No. 1</th>
<th>Why Earth Circumference = 40080 km?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Earth diameter = 12756 km, is considered to be = 1</td>
<td></td>
</tr>
<tr>
<td>i.e. The Earth Circumference which = 40080 km, will be just =$\pi$</td>
<td></td>
</tr>
<tr>
<td>So The Following Is Correct</td>
<td>Error</td>
</tr>
<tr>
<td>❖ Earth Circumference</td>
<td>$= \pi$</td>
</tr>
<tr>
<td>❖ Solar Inner Planets diameter total</td>
<td>$= \pi$</td>
</tr>
<tr>
<td>❖ Moon motion free space (from perigee to apogee) (the free space without the moon diameter)</td>
<td>$=\pi$</td>
</tr>
<tr>
<td>❖ Moon Perigee orbit radius</td>
<td>$= 9 \pi$</td>
</tr>
<tr>
<td>❖ Solar outer planets diameters total</td>
<td>$= 9 \pi$</td>
</tr>
<tr>
<td>❖ Moon orbit apogee radius</td>
<td>$=10 \pi$</td>
</tr>
<tr>
<td>❖ All solar planets diameters total</td>
<td>$=10 \pi$</td>
</tr>
<tr>
<td>❖ 2 Jupiter diameter + Saturn diameter</td>
<td>$=10 \pi$</td>
</tr>
<tr>
<td>❖ Saturn Circumference = Moon orbit radius at total solar eclipse</td>
<td>$= 9.5\pi$</td>
</tr>
<tr>
<td>❖ Jupiter Circumference</td>
<td>$=11 \pi$</td>
</tr>
<tr>
<td>❖ The Sun diameter</td>
<td>$=11 \pi^2$</td>
</tr>
</tbody>
</table>
II- More Data
(Part i)
4900 mkm (Jupiter Orbital Circumference) = 360 mkm (Mercury Orbital Circumference) + 680 mkm (Venus Orbital Circumference) + 2 x 1433.5 mkm (Mars Orbital Circumference)

(Part ii)
5040 minutes x 0.99 = 4898.6 minutes
4898.6 minutes x 60 = 299376 seconds
299376 seconds x 0.3 mkm/sec (light velocity) = 89812.8 mkm
But
89812.8 mkm – 86400 mkm = \textbf{3412.8 mkm} = 360mk +680mk+940mk+1433.5mk
90000 mkm -86400 mkm = 3600 mkm
And …. (300000 km)^2 = 90000 mkm

III- Discussion
Why the inner planets orbital circumferences total = Jupiter orbital circumference?
We know the answer as we have discussed it in the previous paper (Why Jupiter diameter =142984 km? part 1) \url{http://vixra.org/abs/1907.0137}

Shortly
Because (1) Jupiter is the inner planets energy source (2) the distance = Energy
But why
The equation uses 2 (double value) of Mars orbital circumference?
It's hard to explain …
The only available answer now is that -
4900 mkm (Jupiter Orbital Circumference) = 360 mkm (Mercury Orbital Circumference) + 680 mkm (Venus Orbital Circumference) + 1433.5 mkm (Mars Orbital Circumference) +1433.5 mkm (Saturn Orbital Distance)

Why Saturn is used in this equation?
I'm not sure if I know this answer but we have seen that Saturn always be with Jupiter in all equations control the solar group geometry – that may lead us to conclude that the solar planets are created as a result of Jupiter & Saturn relationship – this conclusion still needs more analysis because of the Neptune Crucial role which is an essential in the inner planets orbital circumferences building process…
5-Are There Relativistic Effects In The Solar Group?

I- Data (Distances)

<table>
<thead>
<tr>
<th>1st-</th>
<th>Earth Daily Motion 2.58 mkm</th>
<th>Moon Orbital Circumference 2.41 mkm</th>
<th>1.0725 = \frac{29.53 \text{ days (lunar Synodic Month)}}{27.3 \text{ days (lunar sidereal Month)}}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd-</td>
<td>Apogee orbital radius (406000 km)</td>
<td>Total Solar Eclipse radius (378500 km)</td>
<td>1.0725 (No Error)</td>
</tr>
<tr>
<td>3rd-</td>
<td>778.6 mkm Jupiter Orbital Distance</td>
<td>720.3 mkm Jupiter Mercury distance</td>
<td>\frac{778.6}{720.3} = 1.0725 (0.7%)</td>
</tr>
<tr>
<td>4th-</td>
<td>720.3 mkm Jupiter Mercury distance</td>
<td>670 mkm Jupiter Venus Distance</td>
<td>\frac{720.3}{670} = 1.0725 (No Error)</td>
</tr>
<tr>
<td>5th-</td>
<td>670 mkm Jupiter Venus Distance</td>
<td>629 mkm Jupiter Earth Distance</td>
<td>\frac{670}{629} = 1.0725 (0.6%)</td>
</tr>
<tr>
<td>6th-</td>
<td>Jupiter Orbital Circumference (4894 mkm)</td>
<td>Neptune Orbital Distance (4495.1 mkm)</td>
<td>\frac{4894}{4495.1} = 1.0725 (Error 1.5 %)</td>
</tr>
<tr>
<td>7th-</td>
<td>Saturn Orbital Distance (1433.5 mkm)</td>
<td>Saturn Venus Distance (1325.3 mkm)</td>
<td>\frac{1433.5}{1325.3} = 1.0725 (Error 0.8%)</td>
</tr>
<tr>
<td>8th-</td>
<td>Saturn Earth Distance (1284 mkm)</td>
<td>Saturn Mars Distance (1205.6 mkm)</td>
<td>\frac{1284}{1205.6} = 1.0725 (Error 0.7%)</td>
</tr>
<tr>
<td>9th-</td>
<td>Uranus Orbital Distance (2872.5 mkm)</td>
<td>Uranus Mars Distance (2644 mkm)</td>
<td>\frac{2872.5}{2644} = 1.0725 (Error 0.7%)</td>
</tr>
</tbody>
</table>

II- More Data (Planets Axial Tilts)

\[
\frac{25.2 \text{ Mars axial tilt}}{23.4 \text{ Earth axial tilt}} = \frac{26.7 \text{ Saturn axial tilt}}{25.2 \text{ Mars axial tilt}} = \frac{28.3 \text{ Neptune axial tilt}}{26.7 \text{ Saturn axial tilt}} = 1.0725
\]

We have seen the previous equation in this paper methodology – let's explain it. Neptune axial tilt 28.3 degrees is the master in this equation! Why? Because Neptune reflected the original energy toward the inner planets – simply the inner planets live by the energy reflected by Neptune – as we have discussed in (Why Jupiter diameter =142984 km? part 1) [http://vixra.org/abs/1907.0137](http://vixra.org/abs/1907.0137)

Neptune axial tilt 28.3 degree is contracted by the rate 1.075 to produce Saturn axial tilt 26.7 deg (that provides reason to answer why Neptune orbital distance = Saturn orbital distance x π) – then Saturn axial tilt 26.7 deg is contracted by the same rate to produce 25.2 deg (Mars axial tilt) that may explain why mars orbital Circumference = Saturn orbital distance – then 25.2 deg will be contracted to be 23.4 (Earth Ax. Ti) (That explain why Earth Orb. Period x Mars orbital inclination = Mars orb. Period)
III - Discussion

The Previous Data is mere example for many others
There are – at least – 3 rates used frequently in the solar group geometry – which are: 7.1 – 71 – 1.0725
Let's define these 3 rates

Rate No.1 (7.1)
From Lorentz length contraction equation we know that
If a particle moves with velocity v= 0.99 c (where c= light velocity) so this particle may suffer length contraction effect with rate 7.1

Rate No.2 (71)
Now...
For some reason the velocity v=0.99c is pushed to be v=0.9999c and the last one contraction rate =71
the velocity 0.9999c is important for our consideration because Earth registered velocity =1/10000 of light velocity and that means 0.0001c +0.9999c = c
And that's what we try to prove here – that the matter is created by essential effect of light beam (and light velocity)

Note Please
For the rate 71 we have a huge number of data – I may refer to the following
(A) - 2.58 mkm (moon motion daily x 27.3 days (moon orbital period) = 71 mkm
- 2.41 mkm (the moon orbital circumference) x 29.53 days (lunar synodic Month)= 71 mkm
Simply – The Moon and Earth – Each of both – moves during 27.3 days a distance = 71 million km…
(B) 71 degrees = Sun Declination 63.7 degrees + Sun Obliquity To Ecliptic 7.25 degrees

Rate No.3 (1.0725)
We know – with velocity v=0.99c – so the length contraction rate will be 7.1
Now this rate isn't used directly as it – but used according to the following E equation
\[
\frac{7.1}{100} +1 = 1.071
\]
That means – the rate 1.071 or 1.0725 is found based on the rate 7.1 caused by velocity v= 0.99c but not through direct using – rather it's used through a complex geometrical structure which produces the previous equation – based on the previous idea we can explain huge number of solar planets data.

Conclusion

The relativistic effects – if found in the solar group – will support strongly our claim that the light is an essential player in Matter Creation Process.

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