

Gravitational Catastrophe and Dark Matter

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I have been working for a long time about basic laws of physics [1, 2]. During this time I noticed, that gravity does not work as Newtonian [1]. Distance and gravitational force relation changes over distance. The attraction properties change for each point of free space, and have some limits. The attraction changes due to some values between $1/r$ and $1/r^2$ even for the existent furthest distance. This work aims to analyze and discuss this phenomenon.

1 Introduction

As we know, outer orbital objects rotate faster than inner orbital objects in galaxies according to our observations. Namely an orbital object must take place in space according to $v = \sqrt{\frac{mG}{r}}$; but it was detected, that v and r are not related in this manner. Almost there is no exponential relation like this in galaxy size heavenly bodies.

2 Attraction properties of gravity

To say something, firstly I must tell something about nature of gravity as I discovered.

Matter emerges as a density over time by increasing acceleration as waves over free space being has time differences between any point of its free space. Space turns into particles and particles turn into space continual manner. Matter gains its mass by collecting space in a limited volume at light speed. During its emergence it constantly experiences potential difference since there are time differences in the other name emergence priority. There is a single work to create all the universe, and the work is done one by one for each point of free space and thus particles. By this way any point of the universe gets the same speed since the single work is done by the same speed as work-done is equal to kinetic energy. Total energy of matter is according to this creation work.

While matter experiences the potential differences, naturally there emerge some denser and low density and thus disordered or more ordered points. Disordered points want to be distributed on lower density or more ordered space points since have more stress. Matter gains its total energy because of the work done against this resistance of free space, that otherwise it would not be created since the existent smallest force can move the existent bigger mass magnitude at infinite speed.

The sliding space from disorder to more ordered point also takes the particles together with itself since the particles emerge over this sliding free space. Actual reason of gravity is this, and gravity is only distributed as waves over time along space.

2.1 Attraction magnitude and distance relation

If non-flexible collisions are handled, for two objects which move towards each other at light speed, (1) can be written after the collision.

$$m_1c - m_2c = mc \quad (1)$$

Here, if it becomes $m_1 > m_2$, then the motion is going to be in + direction; otherwise it is going to be in - direction. For $m_1 = m_2$, no motion can occur.

There are a few parts of some gravitational waves which are emitted by m_1 and m_2 masses placed at B and D points in Figure 1. The attraction emerges at A_1 and A_2 points for

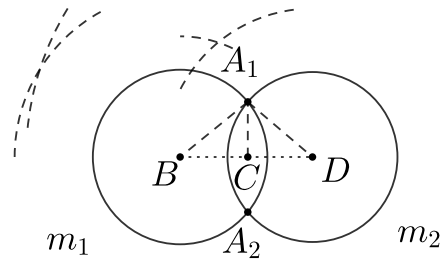


Fig. 1: Gravitational waves

this 2 dimensional wave section; therefore over the equality of $m_a c \cdot \cos(\alpha) - m_b c \cdot \cos(\beta) = mc$, it becomes (2),

$$m = \left(\frac{m_a r_1}{k_1} - \frac{m_b r_2}{k_2} \right) j \quad (2)$$

where $\cos(\alpha) = \frac{r_1}{k_1}$, $\cos(\beta) = \frac{r_2}{k_2}$, $k_1 = A_1B$, $k_2 = A_1D$, $r_1 = BC$, $r_2 = CD$, m_a and m_b are reduced mass magnitudes at k_1 and k_2 distances, j is a constant provides average particle collision amounts of waves since the smallest space parts can collide by different angles or do not collide that can change due to formation speed of light and can take 1 value, smaller or greater values than 1 but 0.

Assume, that 0 dimensional densities of m_1 and m_2 over 3 dimensional densities are $m_a = \sqrt[3]{d_1}/k_1$ and $m_b = \sqrt[3]{d_2}/k_2$ where $\sqrt[3]{d_n}$ is 1 dimensional density over 3 dimensional d_n density for k_1 and k_2 lengths. For total m in 3D, over $2\pi hm$, (2) turns into (3),

$$\Delta m = \left(r_1 \sqrt[3]{d_1} \sqrt{k_1^2 - \frac{r_1^2}{k_1^4}} - r_2 \sqrt[3]{d_2} \sqrt{k_2^2 - \frac{r_2^2}{k_2^4}} \right) 2\pi j \quad (3)$$

where $h = \sqrt{k_1^2 - r_1^2} = \sqrt{k_2^2 - r_2^2}$. This is for a single wave. I am not calculating gravity yet. Just analyzing attraction properties. Already at that point, there would emerge no attraction for the same magnitude two waves; but this is not important. Here over Eq. (4),

$$Ft = \Delta mc \quad (4)$$

you can calculate the attraction force and its way as (+), (-) or 0 being t here is the time which the attraction emerges along a distance at light speed due to the constant wavelength of

gravity I derived [1], and also this is not important now.

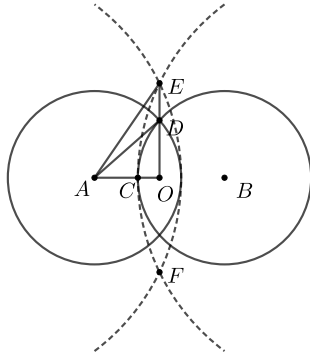


Fig. 2: Another representation of gravitational waves

Now let us handle the Fig. 2. There are two waves radiated from A and B points. The bigger wave parts are also radiated from a further distance than A and B by the same masses. Here OC length is always fixed since it is the shortest distance which the attraction emerges along it for the gravitational wavelength when two waves are intersected.

For these definitions, if we remove the constants since they are not inclusive in change being mass is also fixed, and the other wave's values,

$$F = \frac{OD}{AD^2} \quad (5)$$

the attraction in 3D is basically dependent on Eq. (5) over Eq. (6) which is derived over Eq. (3) without the second wave since is not required,

$$F = \sqrt[3]{\frac{3m}{4\pi AD^3}} \cdot \frac{1}{AD} \cdot 2\pi OD \quad (6)$$

where $\sqrt[3]{\frac{3m}{4\pi AD^3}}$ is 1 dimensional density of m which the mass takes place at A point, $\sqrt[3]{\frac{3m}{4\pi AD^3}} \cdot \frac{1}{AD}$ is 0 dimensional density of the same mass.

Since OC is fixed, we can count it as 1; so it becomes Eq. (7) over $(AC + 1)^2 + OD^2 = AD^2$.

$$AC = \sqrt{AD^2 - OD^2} - 1 \quad (7)$$

Now if you assume that the same magnitude masses take place at a further distance, for this condition, the partial bigger waves on Fig. 2 emerge. OC is still fixed. Even if it is fixed, as you can see, the other lengths exactly increase, and the rule is determined over Eq. (7). Over Eq. (7), we can easily state, that increase amount of AD is always bigger than both OD and OA ; thus if distance between two the same masses increase gradually, Eq. (5) states, that the attraction decreases. If AD converges to OD , then the attraction increases.

This condition is not a good news for scientists. It seems, Newtonian calculation can only work in an interval. Not for small distances as also is not for distant places. Already gravitational constant is completely experimental, and it can easily hide the actual functions which the gravity works over them. Namely it remains as faking up. We already must had feel responsible about verifying it by another method. The motions

in any universe are chaotic. They repeat in an interval; but you need more repeat and more time to draw the big picture; so gravitational attraction between stars or planets is misleading since is slow. Maybe you can detect some of the anomalies if they are too close to each other like deviation of Mercury. Namely it can be observed like the distance and attraction relation is over $1/r^2$. For the better, for example electrons which have incredible spinning frequency are perfect references for motion as also the distance is short enough to detect anomaly relatively to Newtonian formula aside high speed.

2.2 Time differences

Everything is not okay. Even became more annoying; because the velocity of the outer orbital objects of galaxies must be much more slower according to these information. Namely if you assume that there is dark matter that there is no dark matter, the dark matter amount must be bigger than the estimated.

If the distance between two objects get bigger, the gravitational torque is going to increase more being more certain and sensible, detectable since gravity emerges at the two intersection point and the points have time differences. Emergence priority causes a potential difference between these points. Namely one of them emerges before and thus causes more attraction than the other one. Between two consecutive emerging smallest part of space, the time difference can be ignored but macro space.

While you are calculating orbital motion over classic method, you assume that whatever the emerging type of the centrifugal force, it must be equal to the attraction force; but it is not true completely. Actually you calculate it over static condition being two objects are standing mutually. Namely if you do not include the centrifugal force, the formula is gravitational attraction in linear way; but according to the above stated method, one of the intersection point emerges later.

If you think one point emerges earlier and state, that F_1 torque is applied at this point, being the second torque F_2 from the other point, it becomes $F_1 > F_2$. Also it can be said, that energy of the medium namely wave must be conserved. When a space point gets lost since it has an emergence frequency and is not continuous at every point of itself, the energy must be transferred another point. It means, that while a wave is distributed on space over time, it cannot protect its shape. The increasing torque is stolen from the other second torque point. Even if again it is distributed on newly emerged space back, since to be of them before or after of the same two opposite Ft work as $+Ft$ and $-Ft$ causes displacement in a way (+) or (-) according to which one of them you used firstly even for the same values, it slides. Also rotation namely spin of the universe and thus in which way the masses take place affect the condition. By these ways, linear attraction force and thus momentum turns into angular momentum and attraction. There is no other method and alternative for this as required by conservation of energy. This is not a special phenomenon. The universe works in this way even if some times the result is going to be too small to detect.

As a result, the attraction which decreases over distance is supplied by the time difference-driven increased gravitational torque; but by which ratio?

2.3 Calculation of the time differences

The universe has an emergence frequency as also it has a spinning frequency as I derived both [1]. I calculated before the opposite force which free space applies to moving heavenly bodies in changing ratios according to the density of the objects, that for example Pioneer anomaly can be calculated over this [1] by natural holding capacity of free space; but to

make a calculation for the time difference we must know how many space turned into particle.

We must add the extra slowing for the objects like Pioneer since gravitational torque is going to increase; so some of total momentum turns into angular momentum, and so it decelerates in linear way. Otherwise linear deceleration can be calculated over $-ma = V_s \cdot 1.35 \cdot 10^{-13} \cdot s$ as I derived [1] where V_s is volume of the object, m is mass of the object, s is speed of the object and $-a$ is negative acceleration or deceleration.

Warning

Even if all particles get lost, the total mass, energy and frequency is conserved and thus can be used for such a calculation of the opposite force which is applied by free space; but like this calculation of time difference in galaxies, it is so hard. Actually for free space has no particle, the time difference between each cubic meter of the space becomes $1/V$ being V is the volume of the universe; but if a particle emerges, the density and thus the volume changes. And the amounts are so big. For example for 1 ton object, you need almost 10^{30} cubic meters free space according to my calculations; so think that $1/V$ is disturbed by this value. You cannot say nothing changes by thinking observational distances that distance does not specify time. It does not work in that way. Space-time is flexible. We must determine some suitable ratios.

Actually it is good, that by the observation, we can calculate the total matter amount of the universe by calculating the deviation in speed and thus by calculating the time difference over this; but even so also we should find a different theoretical method. I do not know yet; but it seems almost at the amount of the distance between two object like Eq. (8),

$$F_G(r_1t_1 - r_2t_2) = mv^2/r \quad (8)$$

where F_G is Newtonian gravitational attraction, $r_1t_1 - r_2t_2 = r_0$, and F_Gr_0 is gravitational torque, $r_0 = EF$ over Fig. 2.

Gravity moves at light speed; thus also the gravitational latency must be included. Namely, actually outer orbital object store potential. If enough time has not passed yet, the acceleration changes. Otherwise it had gotten the maximum acceleration already. Namely for the life time graph of the galaxies in accordance with chaos, the upper and lower limits had already been determined. It cannot be so misleading.

Warning

3 Conclusion

These show us again, that the phenomenon is also chaotic, emerges in an interval in many different kind. These show us, that nothing can move away from each other after a point. There is a limit for this. They constantly wander around in a limited area. Just there is a flexible interval.

Space objects cannot move away from each other until infinity. This also explains why electrons do not fall into nucleus or fly off; because the phenomenon is not boosting. It is a transformation. Rotating effect of force increases; but this is for protecting the energy which the system holds.

Inference

Chaos is a perfect principle, and is a law according to me and my findings. I am going to develop a new wave function

over conservation of momentum and appearance from imaginary time I derived, and seems also Riemann surfaces are dominant in universe. Complex analysis is required.

Whatever, actual momentum equation is $mc = 1$ [1] that for the smallest time this small time can cause the total energy of the universe as I proved over centrifugal force over required calculation placement and fiction. This also means the sum of all probabilities; but there is difference. Namely the classic wave function which is based on Gaussian normal distribution allows even infinite universes or for example taking place at infinite distance. Actually these must be between some intervals. Namely if you have a probability detector, and if you take place at Mars, for an electron which is placed at the world somewhere, the probability will increase as long as you get closer to the world. If you take place at Jupiter, just the amount changes but again converges as long as you move towards the world; but you cannot take place at somewhere beyond the universe itself since the area can only hold limited energy. The probability is limited. There are some paradox. Instead of it, ratio of each probability increases and cannot be certain or 1 none of them alone; but can be 0 and this is paradox of physical laws. In a limited interval there are infinite probabilities, times, and this is dependent of irreversibility of entropy and thus single way of time. In the same manner, the place which the electron takes place cannot be 0. Namely for a function, for $x = 0$, $f(x)$ cannot be 1. As a result, a function to use for probability calculations, it cannot be integrated to infinity and from negative infinite. As required by conservation of information, even for imaginary time before the real time, our time, there was no paradox in information state. There are also infinite things; but it does not mean there exists whatever you think.

If you accept infinite universes exist at the same time, it means also the copy of current conditions before 1 second of our universe exists somewhere, and never aged version currently exist somewhere being the other variations aged. Namely it means entropy is revers-able since there must be an entanglement between infinite universes since there cannot be an absolute emptiness without energy that also means all existence is one piece, that is impossible. You cannot separate it. This would be the same with it, someone says this part of our universe has no entropy. Already why at light speed? You cannot create infinity by addition like $c+10c+3c...$ Already an infinite must work instead of any finite worker since matter gains energy by the opposite work which is done to create matter against resistance or tendency to surrendering of free space. Otherwise the existent smallest force would move the existent biggest mass at infinite speed, and there would no matter. Already matter emerges by some potential differences. Namely space-time is flexible; thus for infinite universes, there would no wave. It would be fixed.

Emergence of matter is like it, that mass itself creates itself because of conservation of energy; so $mc = m_xc + m_y c + m_z c$ equation is always provided. Here, even if the three components always change, sum of them is always conserved; therefore the equation becomes Eq. (9),

$$dx \left(\frac{1}{dy} + \frac{1}{dz} \right) = -\frac{1}{2} \quad (9)$$

where $ds^2 = dx^2 + dy^2 + dz^2$ and $ds = dx + dy + dz$.

There are five possibilities for motion's emergence type constantly or partially by some intervals as $dx = dy = dz$, $dx = dy$, $dx = dz$ and $dy = dz$ or none of them. $dx = dy = dz$ equation is not possible when it is checked over Eq. (9). For the others, if dx is taken from Eq. (9), and then if it is put on its place on mass conservation equation which is $ds = dx +$

$dy + dz$, the equation becomes Eq. (9a).

$$ds = dy + dz - \frac{dy \cdot dz}{2(dy + dz)} \quad (9a)$$

Here, assume that it is $ds^2 = dx^2 + dy^2$ which is the projection of the same ds during forming a sphere by $ds^2 = dy^2 + dz^2$, where $dx = dz$ by the same angle vertically and horizontally according to a fixed reference; then Eq. (9a) becomes Eq. (9b).

$$dx^2 = dy \cdot dz + dz^2 - \frac{dy^2 \cdot dz^2}{4(dy + dz)^2} \quad (9b)$$

Over Eq. (9b), it can be said that $dx = dy$ and $dx = dz$ are not possible. For $dy = dz$ equation, it becomes $dx/dy = 33/16$; but if it is used on the main function Eq. (9), it seems that even it is not possible as well; therefore there is only one possibility left that none of them emerges even for any interval of motion, and the components are always different. They never intersect for any combination. Any point of free space has emergence priority due to the time differences that I already proved this by another method over geometry [1]. Even for after the comma which means in small amounts, between two different times, there must be an evaporation or in the other name vibration decrease, and it is recovered since there will be friction or collision by different magnitudes as non-flexible; so repeat and thus frequency required to keep matter standing. A work is constantly done even in each small time. Matter is sum of many frames.

Here as you can see, dx , dy , dz are the smallest 3D derivative components of an unknown function whatever the function is; so as matter basically works over the same principle, namely if that components were for speed, distance, force or time by changing functions since the rule is going to be the same, for example if you knew t as the same for any component during measuring distance over $x = vt$, then v would be different. If you knew v , then t would be different. As also there is time differences, a motion is only able to emerge over arcs since there is no middle point for any force applied; so additionally if you know t , v becomes uncertain because of emerging irrationality; so in the exact opposite way of the wave function, even if you measure any physical value at different times even for different phenomenon, there is going to be no intersection point. You may get closer but equation. As a result, 3D position or for example 3D mass cannot be detected certainly if you know for example time. Even you cannot detect the other component if you know one of them. Namely, the uncertainty is not limited by momentum and destination. It is also valid for example between mass and destination or time and distance. As a result for like-this relations, you must relate them by both inequality and uncertainty like Heisenberg did. Also you can write your own with coordinate system.

This is like the rule of circle. If you take the circumference as integer, then you make the radius uncertain as irrational. If you take the radius as integer, then the circumference becomes uncertain because of the relation between area and length of the circle.

Hence entropy also increases as long as there is motion. If you assume that there are infinite universes then the total energy of the universe which is done to create it against space resistance must be provided by another universe or energy source. It means between two energy, there is an energy transfer. While our universe is emerging, the source loses energy, and when our universe lost, the energy stored again by the source; but as you can see this is not different then the energy transfer in our universe during creation or after creation. Namely, if there is a transfer, there is going to be vibration decrease and extra energy need. It means, the source is con-

sumed by mc^2 each second. It means our universe consuming many universes, as the other universes consume many other that also source universes need energy from other one, then where is the extra energy is provided from. Already our universe also must be source of another one.

If you think there are limited universes that the number can be like 10^{10000} , as infinity can never work since anything is element of it namely there is no energy change in infinite energy, these universes would spend mc^2 even in infinite sum. Namely energy spent by these universes for 1 second is equal to infinite period of their life time spending. As a result there cannot exist infinite universes at the same time with infinite transfer. Infinite transfer amount means emergence from nothingness constantly each second since requires infinite energy decrease to 0 and then increase from 0. This is non-sense. Already it cannot be over time. It happens untimely manner and first time creation is not possible.

Already as you can see, there is no constant speed due to the components. It also means there is acceleration or deceleration. Acceleration is only possible from zero point that is not possible; but deceleration is possible from infinite, absolute energy, and emerging things are its virtual parts with frequency. There is an imaginary time point that I proved it mathematically [1]. There are imaginary time, motion and energy.

References

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