## Advances in science

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- \* There is no centrifugal force. For example, in case of Earth and Moon gravitation acts somewhere towards the center of mass, but no other force acts in the other direction. If there was a centrifugal force it would cancel with gravitational force and space object would be standing still or move at a constant speed on a straight line. If we think of a rocket acting on Moon somewhere towards the center of Earth, and let say that the Moon's orbit is a perfect circle, then we can see that force would be acting in one direction, same direction in which gravitation acts. That is another proof that there is no centrifugal force.
- \* Physics law of conservation of energy does not apply when it comes to gravity. Moon does not lose energy, it hasn't fallen on Earth even after billions of years. Huge energy is needed to make it move along an orbit path, especially for so long time. Even after applying so huge gravitational force during so much time, Moon's kinetic energy remained same, without being increased nor decreased.
- \* Riemann manifold, space-time curvature, does not explain the way how gravity works because light is not caught / affected by it, except in extreme cases like around black holes. Otherwise light would, for example, be able to bend into an orbit around earth in a similar way like Moon. Riemann manifold also does not explain existance of gravitational force at all.
- \* Space and time consist of cells of infinitezimal lenghts. For example usually between any 2 points there is infinite number of points, but each point has length of 0, so the total length between 2 points should be 0, but it's not (obviously). Which means that space and time consist of infinitezimal lengths which are bigger than 0, but infinitelly small. That is what dx is in integrals. Who would think that such thing exists, it is like the number 0.000(Infinite number of zeros)1 or some other additional digit(s) instead of digit 1 there. It is very strange that such lengths exist in space-time.

Let say that there is a line of finite length n\* from point A to point B, and in the middle of it there is the point 0. If we scale that line into a line m\* of infinite length, all points left of 0 on line n\* that are not infinitezimal would be mirrored into points that are on m\* at infinite distance left of point 0. Analogy applies to the right side of those lines. When it comes to points that are infinitezimally close to point 0 on line n\* left of point 0, they would be mirrored into points that are on m\* at finite distance left of point 0. Analogy applies to the right side of lines. We can compare this to the fact that Universe is infinite in both: big and small. By looking at both: finite line n\* and its mirror: infinite line m\*, we can conclude that there are many more points on infinite line m\* that are at infinite distance from point 0, than those points that are at finite distance from point 0. There is actually a line between finite and infinite numbers. Left of that line is largest finite number, and right of that line is smallest infinite number. This means also that there is not only one INF number, there is infinite number of infinite numbers. Point A from finite line n\* would mirror itself into the point -INF on line m\*, which is smallest infinite number. Point B from finite line n\* would mirror itself into the point +INF on line m\*, which is biggest infinite number.

Number of infinite and infinitezimal numbers is far far greater than number of finite numbers, and that shows that Universe is infinite in both: big and small. Also, numbers at finite noninfinitezimal distance from zero were mirrored into numbers at infinite distance. That means that some finite numbers from among infinitezimal numbers were mirrored into finite noninfinitezimal numbers, while most of infinitezimal numbers stayed infinitezimal even after mirroring. The reason why it was possible to mirror numbers at finite noninfinitezimal distance from zero into so so many infinite numbers is the fact that those numbers consist of: finite numbers with finite number of decimal

places, and such numbers with infinitezimal numbers being added/appended to them. There are no points between point 0 and smallest infinitezimal number that is smaller than all others. dx in integrals is not a point, it is any infinitezimal length, even that length between point 0 and smallest infinitezimal number. However that length between 0 and smallest infinitezimal number is actually 0, otherwise there would be more points between them which is not true, meaning there is zero number of points between them. They are successive points, and length between them is zero. However, if it is zero that would mean that they would be exactly same point which is not truth. So, it is truth that that length has magnitude of zero 0, and larger than zero but smaller than any other length 0+, at the same time. Which means that something can be both: true and false at the same time, which proofs that the One and Only God can create even something like that. This applies to all 3 spacial dimensions and the time dimension.

Let's define 0+ space as space that is made of all dots that are at distance of 0+ around 0. There is omnidirection even at small scale and any other scale, and there is enough number of dots within 0+ space to form any shape made of finite number of dots. This allows possibility of 'drawing' any shapes of any size through dots in space. A single dot in geometry could be defined as infinitezimal surface of some shape.

\* Rational numbers are all finite numbers that have finite number of digits and they can be written as a fraction, where both the numerator (the top number) and the denominator (the bottom number) are finite or infinite integers, and the denominator is not equal to zero.

An irational number is any real number that is not rational. Those are numbers with infinite number of digits; for example:  $\sqrt{2}$ ,  $\sqrt{3}$ , number  $\pi$  and e are irrational numbers.

- \* Dark matter is addition of space between galaxies. The reason for us not being able to see outside of visible part of universe is that light from those parts has not reached us yet. Light from even further parts of Universe will never reach us because of dark matter, addition of space between galaxies. Note that we have observed galaxies moving away from us at greater than 0.9c. The galaxies in the universe are all flying away from each other.
- \* Above the surface of black holes it is possible that there is time dilation in regards to massive gravitational force, however time does not stop flowing. Light waves can not escape gravity of black holes and when they attempt, their magnitude is lessened and they behave in a similar way like magnetic (radio) waves behave when they go through obstacles like thick buildings' walls and similar.
- \* In regards to formula for gravitational force:  $F = G(m1*m2)/(r^2)$  number 2 is totally unexpected to be exponent, because what are chances for it to be exactly 2 when it could be 1.87, or 1.963 etc. In commonly known physics they say that G is a constant and does not depend on radius r, however what if it does depend on radius r somehow? It is not possible to calculate mass of planet nor star, not even closely, so I guess we will never know the real formula for gravity.
- \* In many commonly used books and encyclopedias it is written that cores of planets and cores of stars are extremely hot and under huge pressure. That is not truth at all, because gravity is lower and lower as we approach center of space object since gravity cancels itself. In the center of mass of such an object there is no gravity, and pressure is somewhere around 0.

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