

## The Big Bang Theory is Impossible

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First, what is the escape velocity?

If we shoot a bullet upward with a velocity less than escape it will return to earth. In fact, the bullet will climb to a certain height, its velocity will reach zero and then it will fall back to earth. At the peak point, the bullet has potential energy only. The greater the velocity, the higher the bullet climbs. From this, it is possible to define escape velocity as the minimum velocity needed to insure the bullet does not fall back to earth.

As the bullet does not fall back to earth, it will continue indefinitely. Using the gravitational potential energy and the kinetic energy of the object, it is possible to express a formula for the escape velocity. If we consider the gravitational potential energy for a system at infinite distance as zero, it will be easy to prove that:

$$U = \frac{GMm}{r}$$

In this equation, U is the gravitational potential energy, M is the mass (for example, earth mass), m is the bullet's mass, G is the gravitational constant, and r is the distance from the center of the earth to the center of the bullet. It is then possible to say:

$$U = K$$

$$K = \frac{1}{2}mv^2$$

$$\frac{GMm}{r} = \frac{mv^2}{2} \Rightarrow mv^2r = 2GMm$$

$$v^2r = 2GM \Rightarrow v^2 = \frac{2GM}{r}$$

$$v_{esc} = \sqrt{\frac{2GM}{r}}$$

K is the bullet's kinetic energy,  $v_{esc}$  is escape velocity. The escape velocity for the bullet does not depend on it's mass. Also it is clear that if the distance between two objects tend to zero, the escape velocity will tend to the extreme.

Considering the mass and radius, the escape velocity for some celestial masses are as below:

The sun is 617.5 kilometers per second, MERCURY is 4.4kps, VENUS is 10.4kps, the EARTH is 11.2kps, the moon 2.4kps and MARS is 5kps.

The theorists of the big bang claim that all the current mass, material and energy of universe was compressed into a very hot and infinitely dense sphere, billions of years ago. After an explosion, its energy and material dispersed and the universe created. Now we wish to check if this theory is correct.

$$V_{esc} = \lim_{\substack{M \rightarrow +\infty \\ R \rightarrow 0}} \sqrt{\frac{2GM}{R}} = +\infty$$

For this we shall calculate an escape velocity for the mass and energy of the dense sphere (in the first moments of the explosion. The escape velocity or space-time expansion is equal to the limit of the escape velocity general equation, when its mass tends to the extreme and its radius tends to zero. Because the universal mass approached infinity, and the sphere's radius approached zero (about radius of an atomic particle) there would be an infinite gravitational pressure, so it is easy to conclude that nothing (material, mass or energy) could exit or escape from the sphere.

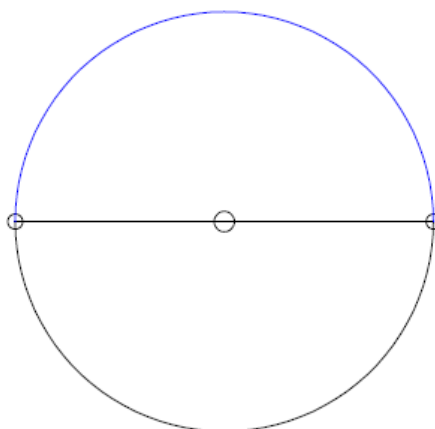
The limiting velocity is expressed in relativity theory as that of light and of course, it would be negligible compared to that required for escape. So it is possible to conclude that the mentioned sphere would not allow anything to be emitted. If such a sphere was formed as an aggregate of all masses and energies, it would be impossible to extract anything, let alone the universe. So the Big Bang theory as a cause of the existence of the universe is impossible. As we know, light cannot exit a black hole (lower than Schwarzschild radius). Now the question must be asked: How can light created by the Big Bang escape from an inescapable gravity field, and when cooled, convert to universal background radiation?

Light does not basically cool, but the intensity of the dispersed spectrum from hot objects moves towards the red spectrum in time. The limiting velocity in relativity theory is light velocity and it is not sufficient for the Big Bang, which requires superluminal speed.

There are two items in question:

- 1- The accuracy of the relativity theory.
- 2- The accuracy of the Big Bang theory.

You are free to decide. But it seems we should select the accuracy of the relativity theory and reject the Big Bang theory! Now we consider the issue from the standpoint of a finite but boundless universe:



Here  $r$  is the radius of the universe. In this case, the distance between two masses, equals  $\pi r$  (the blue arc), because the circumference of this circle is  $2\pi r$  and we should replace  $r$  with  $\pi r$  in the above equation. Since  $\pi$  is a fixed amount, we will reach the previous result. It should be assumed that the universe is expanding on the surface of hypothetical sphere in this picture (an inflating balloon).