

10 great reasons to prove speed faster than light:

1. speed faster than light by Hubble's law:

The observable boundary of universe is 10^{24} km. If we set that in the Hubble's formula, we perceive that the galaxies which located at this distance are currently moving at a speed faster than the speed of light.

$$V = H_0 D = 72 \frac{km}{s.Mpc} \times 10^{24} km = 24 \times 10^5 \frac{km}{s} = 8.6 \times 10^9 \frac{km}{h} > C$$

<https://ui.adsabs.harvard.edu/abs/2021APS..NESA03005S/abstract>

2. speed faster than light at the initial moments after the Big Bang:

After Big Bang and consuming a small part of energy to create matters, rest of the energy has shown itself in the form of kinetic energy, and its result is the creation of the speed faster than light.

<http://aas236-aas.ipostersessions.com/Default.aspx?s=30-9F-05-00-93-7B-29-C8-17-BE-9C-74-9A-23-81-AF>

<https://www.saleh-theory.com/Article/1029/a-new-explanation-for-dark-energy-and-dark-matter>

3. speed faster than light by using the Blueshift (Redshift):

According to the calculations performed on the Blueshift (Redshift), the Blueshift phenomenon can only happen when the light of galaxies meet at a speed faster than light.

4. speed faster than light by data from Hubble Space Telescope (HST):

In 2016, Hubble Space Telescope managed to discover a Galaxy located at a distance of 10^{32} light-years from Earth. Considering the universe's 14-billion-year-old age, existence of this galaxy at such a distance, indicates that the average speed of this galaxy must be about 3 times faster than light's speed.

<https://web.archive.org/web/20160706052008/http://hubblesite.org/newscenter/archive/releases/2016/07/fastfacts/>

5. Lack of reason that prove the impossibility of having the speed faster than light:

Inexistence of the speed faster than light is a hypothesis made almost 100 years ago and so far, there has never been a definitive phenomenon provided to prove it.



6. speed faster than light by using the ratio between rotation period and the lifespan:

Lifespan and the rotation period of all celestial objects are proportional. For example in universe the rotation period of celestial objects such as Moon, Earth, Solar system and Galaxy is always much smaller than one tenth of their life span. If we assume the rotation period of universe one tenth of its life span i.e., 1.4 billion years, and the radius of the universe 10^{24} km, and then use the simple formula of: “speed is equal to the distance divided by time”, speed of the galaxies with this distance will exceed the speed of light.

$$V = x/t = \frac{10^{24}}{1.4 \times 10^9} \approx 10^{11} \frac{km}{h} \gg C$$

<https://ui.adsabs.harvard.edu/abs/2020APS..APRH12005S/abstract>
<https://www.saleh-theory.com/Article/21/light-speed-barrier-broken>

7. speed faster than light by using the constancy of universe angular velocity:

The Cosmological principal that is obtained by analyzing cosmos in great scales says:” In large spatial scales, the universe is isotropic and homogeneous.” And according to the Copernican Principal the isotropy and homogeneity of the universe, states that the universe is uniform. Therefore, in a homogeneous environment, physical quantities (such as angular velocity) do not have sudden and intense changes and in all points are equal to other points. Assume that one of celestial objects rotates with a different angular velocity. According to the Newtonian laws, this object must continue its motion into other orbit, and after a while its orbit of rotation changes and perhaps in its way to the new orbit, it collides with other celestial bodies, causing to disrupt the homogeneity of the universe. With this argumentation and similarity between angular velocity of Milky Way galaxy and the universe, we understand that all of celestial objects farther than 10^{20} km must have a speed faster than speed of light.

<https://ui.adsabs.harvard.edu/abs/2020APS..APRH12005S/abstract>

8. speed faster than light by using the spatial light modulator (SLM):

Researchers in the Central Florida (UCF) have presented a way to control speed of light. They have managed to speed up a light pulse up to 30 times more than the speed of light and exceed the speed of light, or slow it down and reduce it to half the speed of light.

<https://phys.org/news/2019-04-researchers-develop-way-to-control.html>

9. speed faster than light by using the gravitation of black holes:

Since the gravitation of black holes are so high that can curve the pathway of Photons, and also no light can run away of its gravitation, thus it's able to affect the light speed. Now imagine a light traveling toward the black hole. The gravitation of black hole will definitely affect this photon and will certainly increase its speed, making it reach a speed faster than the speed of light that we could not see.



10. speed faster than light by using relativistic quantum equation:

The quantum equation of Schrödinger in relativistic (The highest speed is the speed of light) is not true and in relativistic turns into Klein-Gordon and Dirac equations. With this conversion of equations, it faces problems such as negative possibility density and negative energy for the wave functions. Even though they have related the negative energy to antiparticles so that this problem eases a little bit, but it is natural that the negative energy is physically not acceptable. Since this deficiency is not present in non-relativistic equation, Schrödinger's equation, therefore the resulted deficiency is because of acknowledging to the relativity i.e. inexistence of speed faster than light.

https://itp.uni-frankfurt.de/~valenti/SS18/QMII_chap6.pdf

