

Achieving near light speed to faster than light speed via wave propagation and electromagnetic field propulsion

Abstract

Background: As man aims to go beyond the reach of the solar system, technologies that are capable of achieving such distances pose serious problems. One being that spacecrafts are not fast enough to reach destinations and hence it takes extremely a long time. The solution to this would be near light speed or faster light speed travel. It is debated highly that such travel is not possible due to conventional physics, but when man breaks the norms and looks outside the box solutions can be found. The closest star Proxima Centauri is a few light years away and with conventional engines it can take decades and centuries to reach. The use of antigravity and antimatter engines have also been researched widely at many institutions like NASA and other agencies which make major leaps in this field however very rarely have significant solutions been found, this is why the following paper is going to be discussing how NLS and FTL light speed can be achieved. The type of propulsion source proposed would be wrap drives along with field propulsion in order for the spacecraft to bend space to get to destinations faster. This solution might reduce the time it take to reach stars by a huge amounts. To put things into better perspective spacecrafts might be able to reach Proxima Centauri in a few years (3-5 years) with this technology.

Keywords: antimatter, antigravity, positron, graviton, unified field theory, special relativity, quantum entanglement, anti-graviton electromagnetic field propulsion, quantum field theory, wormholes, space time distortions, wrap drives, black holes, wormholes, negative charges, positive charges, blinding of space time, helical engine

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Introduction

Since the 20th century many advancements in the field of space have occurred, one of the biggest in the field being the development of the chemical rocket which allowed man to set foot on the moon. Ever since that time many advancements including Einsteins discovery of the unified field theory and special and general relativity have occurred. The discovery of these theories and things have allowed scientists to get a better perspective of the universe and the way it works but until recently man has never been faced with a bigger problem related long distance travel at a fast speed in space. Ever since the proposal of the Wrap drive much work has been done to achieve near light speed, the requirement for this type of technology is for long distance travel since man aims to send spacecrafts and wants to explore the solar system itself. Major technological and scientific feats must be achieved to accomplish this however. Since the speed of light is 299, 792, 458 m/s some problems arise due to the speed needed. This poses some serious engineering problems which have always posed a major challenge and threat to designers trying to build these machines. Majority of the ideas and the engines have never left the drawing board and hence it has always been discredited by most scientists. The main technology talked about in this paper might allow spacecrafts to achieve 100% light speed or even FTL speed if more advancement is done. The main mechanism and the main method used for achieving light speed used in this paper is electromagnetism and wave propagation along with space time distortion. The main reason why electromagnetic waves may have an impact is because gravity and magnetism are directly linked and in fact if 2 like poles are forced together they produce anti gravity due to the opposing force and the force of repulsion thus generating anti gravity and zero point energy between them. In the zero point energy of a magnetic field the center of the field is considered the point of zero point energy.

Using energy sources such as antimatter special properties such as positrons and gravitons can be used as energy sources. The main way to achieve light speed however could be achieved by altering the magnetic field while a gravity field is being created, this might cause a invisible bubble which could create synthetic distortions of time and gravity allowing spacecrafts to reach destinations faster. Theoretically wormholes are phenomenas in the universe that connect one place to another at a faster rate by allowing objects to reach the destination by bending space and generating a hole that connect 2 places or more rather than actually taking the long route through space. By altering the gravitational field around the object or in this case the spacecraft, distortions can be created due centrifugal forces in the spacecraft which would be because of the working of the wrap drive. This is true as when the centrifuges in the wrap drive start to spin higher masses at a greater speed a gravity field can be produced. This can cause the space around it to bend causing the spacecraft to cut the time it takes to reach a certain place by a huge amount, although it is important to make sure nothing around it is affected and hence generating a bubble that can be controlled would be better since nothing outside is facing the forces happening inside the force field. Since creating wormholes and ones that can actually last for a long period of time is a major challenge one solution would be to traverse the fabric of space via distortions rather than generating a complete wormhole in itself. This means doing the job of a artificial wormholes but without actually generating a wormhole itself might be possible since fields can be generated around the spacecraft that might allow spacecrafts to reach destinations faster. This can be done by generating artificial gravity that can be controlled via electromagnetic waves as well as zero point energy. This can then be combined with a new type of propulsion source called anti graviton electromagnetic field propulsion. The way this works is by using the energy propagation and using zero point energy. The main way the zero point energy is by utilizing and

oscillating the electrical field at the center of the zero point energy field. The current can then pass to give out electromagnetic energy and this can affect the size of the field and in turn affect the distortions and the side of it. The amplifiers work by using microwave or microwave lensing to affect the field. As the microwaves are released it can be lensed and since microwaves and electromagnetic waves are kinds of waves they can be altered thus adding to the field itself and this can also affect the distortions. When the spacecraft needs to increase acceleration the main electromagnetic waves can increase in direct proportion to the microwaves and the main zero point energy field along with the wrap drive system can allow the spacecraft to achieve NLS and possibly even faster than light speeds. Since gravitons are elements of gravity the term used for the propulsion source was anti graviton since the aim of the propulsion source is also to generate anti gravity which it would do and thus the name was derived. The main source of power chosen to be used is anti matter. This is because the amount of energy released when matter and antimatter annihilate is extremely big and hence the energy produced would be higher. As mentioned earlier the main field propulsion is achieved by altering the microwave, electromagnetic waves and by warping gravity which is how the spacecraft achieves the speeds it needs to and hence the name anti graviton electromagnetic field propulsion (Figure 1).

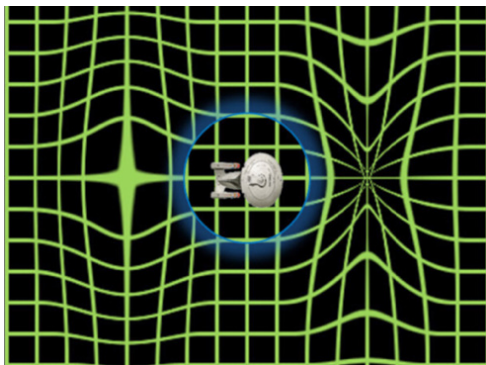


Figure 1.1 Wrap drives bending spade time.



Figure 1.2 Wrap drive traveling at FTL speed.

Methods

Currently some of the major challenges faced with achieving light speed is implementing the technologies that come out of science fiction such as EM drives, wrap drives and field propulsion. Another problem is also that theoretically the techniques used to achieve light speed may be possible on paper, the current technology makes it very difficult to accomplish these feats. The main technology capable of achieving NLS or FTL speed is achieved by generating fields around the spacecraft. Since currently gravity control is not completely mastered it might be very hard to generate wormholes capable of allowing spacecrafts to travel at light speeds. The solution to this is would be to use magnetic fields along with microwave and zero point

energy, the reason why this is a good idea is because magnetism is a cousin of gravity and hence alternating the magnetic field along with microwaves can generate acceleration. Further on using a wrap drive system which uses a core mass that is rotated at high speeds can generate a gravity field since the centrifugal forces acting on it increase the mass of the object which therefore increases the gravitational field. Since objects with a higher mass have a greater gravity field it would be better to use this system. When observed closely our hands also distort a bit of space fabric, this is known because when observed closely it looks as though a curve can be formed around our hands showing us that all objects bend space time although objects with higher mass distort and affect gravity at a greater rate. Waves in space can be perceived by dropping a heavy rock into a river and observing the ripples, as the waves go further it is understood that the more the mass and hence the more the ripples and thus the greater the wave strength. Similarly in this context the waves are in space time and the space fabric and hence generating more mass is like altering the gravitational field to a great extent. Since magnetism and microwaves are types of waves they can allow the spacecraft to generate a energy field and a gravitational field. When using zero point energy the system used can be described by using 2 kinds of magnets, weak and strong and opposite and negative. When 2 like poles are forced together they generate a zero point energy field. When current is passed in AC this generates a oscillating pattern of waves that can be combined by magnetic and microwave waves which generate big bursts which allow the spacecraft to instantly accelerate to NLS and FTL speed and consistently maintain that speed. The main reason why AC current is used rather than DC is because the advantage with alternating current is that it can be oscillated. The reason why this is important is because as the magnets oscillate the current that is just perfect can be established therefore making sure that only one type of current is not passing and there is a mix allowing the bursts to happen. The magnets can be placed in the center of the spacecraft as this can generate a locked energy field which extend and alter the magnitude of the waves, however the main magnetic fields combined with the microwaves affect the size of the field. When the magnets and the current is passed through the electromagnets a intense gravitational field can be generated, this is different to the like charged magnetic system since this generates a regular magnetic field that would work along with the microwave system. The microwaves can be placed on either side of the spacecraft to alter the magnetic field making the spacecraft accelerate due to the energy and the wrapping of space time by the wrap drive. The like magnetic system would affect the speed and the rate of the distortions since the main oscillation of current would occur there. The like magnetic system can also be termed as the free energy generator since the middle of the like magnetic fields is where the free energy is. On the top of the spacecraft the main electromagnets are going to be places (opposite charges). This combined with the strong gravitational field will allow FTL travel. Since the other problem associated with NLS or FTL speed is the energy the solution of this could be to use anti matter. Since currently extraction of anti matter from the universe is very hard the solution to this could be to try and synthesize it. When matter and anti matter annihilate they can produce extremely vast amounts of energy. 1g of anti matter combined with matter can produce the energy equivalent to a atomic bomb which when converted can power the systems on board the spacecraft very well. Element 115 is a radioactive element what is super heavy meaning when it is bombarded with a proton it becomes unstable and releases element 116 which is anti matter. When this is annihilated with a matter target which can be any gas it produces vast amounts of energy. One idea might be to use a wave guide as well so that the waves can be propagated better above the spacecraft. The element 115 can be ionized in this tube and via a

electromagnetic fan system that absorbs the neutrons by attracting it, the energy released can be completely converted into a shock or a surge in heat and light which when converted into electricity can power the spacecrafts and the electromagnetic field generator as well as the microwave generator and the zero point energy generator. Some of this technology is tested out in CERN and some of it are the claims of scientists who worked in government installations as well. By taking some concepts from each of the sources the idea can be verified (no idea has been stolen as all the ideas have been created and developed by us primarily). The main reason why this idea can work is because concentrated and like fields generate a lot of energy which can allow the wave fields to increase and this can affect gravity and the rate at which space is being wrapped. This is directly related to the acceleration of the spacecraft. As the mass of the spacecraft itself increases it becomes very hard for the wrapping of the drive to occur since more energy is required to spin the wrap drive. This is why reducing the mass and increasing the position and the degree at which the field waves occur is of utmost importance, this is why even if the mass of the spacecraft is significantly high the angle and the wrap can impact the propulsion and the acceleration rate and hence the speed of the spacecraft can increase. The microwave and the electromagnetic field can be adjusted thereby adjusting the speed and substituting for the increase of weight. This is because the angle of attack or the wave strength is directly related to the size of wave being propagated and the smaller the spacecraft the lighter it is and hence the speed of the wrap does not need to be as high as that of a heavy spacecraft and hence calculating the degree at which the microwave and the magnetic waves are propagated is very important for the acceleration and the speed. The main power source is close to 100% efficient and hence the power requirements of the spacecraft can also be met. Furthermore the formula $E = mc^2$ states that energy is equal to mass times the speed of light squared. When the formula of $E=MC^2$ is substituted $c = \text{square root of (energy x mass)}$. This is why the amount of energy and mass required to achieve light speed differs. The higher it is however the better unless the spacecraft is able to substitute for it by adjusting the other parameters such as the field size and the magnitude and the weight. The total exact amount of energy that 1g of matter and 0.5 g matter can produce is equivalent to 21.5 kilotons of energy. Assuming 3g of anti matter and 6 g of matter is used the amount of energy produced would get an extremely vast number which is why it is so efficient. The formulae used to wrap and bend space time would be (Figure 2).

$$R_{\mu\nu} - \frac{1}{2} R g_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu}$$

(tells matter/energy how to curve spacetime) (tells matter/energy how to move through curved spacetime)

Figure 2.1 Einsteins field equation.

$$R_{\mu\nu} - \frac{1}{2} R g_{\mu\nu} = (8\pi G) T_{\mu\nu}$$

curvature of spacetime constants energy and momentum

Figure 2.2 Einsteins space time equation.

$$v_s(t) = \frac{dx_s(t)}{dt},$$

$$r_s(t) = \sqrt{(x - x_s(t))^2 + y^2 + z^2},$$

$$f(r_s) = \frac{\tanh(\sigma(r_s + R)) - \tanh(\sigma(r_s - R))}{2 \tanh(\sigma R)},$$

Figure 2.3 Wrap drive and NLS/FTL speed equation.

Discussion

Theorizing near light or faster then light speed is comparatively has been theorized by many scientists although developing something that is feasible enough be used in the future is much harder and hence the conditions of the astronauts must also be taken into account which is why the use of meta materials is critical. The instantaneous acceleration causes extreme G forces which is why the main cockpit would need to be made in way so that the pilots don't face such forces. Some of this technology can be taken from hyper loops and can be further advanced. The spacecraft would also need to be capable of operating under any and most circumstances which is why the spacecraft would need to be capable of operating under the stresses of space. The main propulsion source has been proven on various occasions as well and hence using this might be a good idea, anti matter has been experimented at places such as CERN and new research is showing that anti matter can be synthesized on Earth as well, this is why when closely looked at old and new data being produced it can be seen that achieving light speed and faster then light speed might be possible, furthermore it is possible to achieve light speeds using a wrap drive due to the fact that it can bend space time which is a very important part in the acceleration of the spacecraft. Many people argue that this is not completely feasible however new advances in meta materials have been done to prove that it is possible. Institutions like UC Berkeley have found out new materials that have a extremely high tenacity to stress in space. This shows us that it is possible to undertake the stresses of space using the new technologies being created. This being said a lot of advancement can be done in this field but currently theoretically and even physically lots of things mentioned in this paper are possible. Further research into synthetic wormholes might allow humanity to reach destinations at a even a faster rate but in the coming decades and years a lot can be done to further advance this field. Furthermore the various formulae used may also spark discussions on the validity and the usefulness of the sources. The main scientists whose equations the paper contain are Einsteins field equation, Einstein space time equation, the $E=MC^2$ formula, data from the Higgs boson condensate, the formulas used in the wrap drive, the Einstein unified field theory. Each of values mentioned in the paper have been put in and have been verified which is why the main sources and the numbers used are verified. Theoretically majority of the systems should be able to work but implementation is quite hard which is why it is estimated the that a functional wrap drive and a functional spacecraft capable of light speed might be able to be created within the next decade, although this is true this is just a estimate and it might take more or less time to complete this scale of a project. Many scientists further believe that it might not be possible to travel at light distances because of the various problems associated with the speed of light, the acceleration, temperatures and the power as well as the time dilation and the sociological impact of it on the astronauts. While many areas such as the wrap drive, gravitational bending devices, field propulsion and even solutions to instantaneous acceleration have been researched upon a lot of things can be done

to completely make light speed efficient. Many types of engines such as the helical engine developed by NASA have also proven to be successful although achieving 99% the speed of light may still pose challenges in reaching the destinations desired. Many future advancements are also happening at this moment and there might be more papers on how to achieve light speed but achieving 100% light speed and even more might still pose a challenge if principals used in physics is consistently applied.

Conclusion

To conclude the theory of light speed is possible and with valid discussions from scientists it is possible to do so currently although the main problem currently faced is actually implementing the solutions. With the current advancement in technology it is likely that by a decade or so light speed might be physically possible and might allow humans to reach the stars and the galaxy systems in less time. Furthermore the main technologies used and mentioned in this paper might be controversial although as time and advances in the field of physics it is very likely the phenomenas and the main technologies can be actually be proven and even tested in the future. The conclusion to the solution is that it is feasible and even viable and as humans aim to go beyond the reach of the solar system such technologies would be very important for long distance travel. In total this system is completely reliable and is comparatively easier to develop under the right situation and time making this very efficient. A lot of the technologies used in the paper are mainly new such as the new type of anti matter system, anti graviton electromagnetic field propulsion system and the zero point energy generator as well as the entire wave generation system, this makes the spacecraft and the technologies more modern which is a good thing because this relies on some principals of scientists like Einstein and newton and Maxwell but also uses new types of technology to and combines a bit of theory developed by the scientists to give us the solution of light speed aircraft, this is why the entire solution provided in the paper is completely proofed using the formulas but also using some basic principals of physics and then majorly advancing it to give us the solutions presented.

Acknowledgments

None.

Conflicts of interest

Authors declare that there is no conflict of interest.

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