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## FUTURE TOURISM THROUGH WORMHOLE TIME TRAVELING

### Article Particulars

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### Abstract

**Objectives:** The aim of make this research is to find out the way to reach past and future through the wormhole and also promote the tourism industry through time travel. And after making research for "How it's possible?" And finally, we show the uses and benefits of this research at the Government, Tourist, and society. Now a day's Tourism is the one of the biggest industry in all over the world. And also it is one of the heritage industry. It is survived in the old days to now modern days. In the reason of surviving that, the tourism industry is easily adapted to technology and trends. That's why people need tourism industry at every time. Naturally, every human brain has a searching ability. In that same searching ability, makes the human at the top of the world. In our world is going to move the next step. Human brains have a unique ability; every person can think imagination, innovation, intelligently and creatively. I was watching "THOR II" movie, that time I saw body transfer through the magnetic hole. At the time I was thinking about "Time travel is that possible?" In the modern days, peoples don't like to visit previously visited place. The reason is they have no surprises, no searches, etc. So now we need some new tourist spot. That's why we try to touch the wormhole and make a time travel tour. Tourism industry that gives the sweetness to the humans searching. In the tourism industry, people search lot of things but the end of every searching people get lots of happiness only.

**Methods:** collect the data's from the internet, daily newspaper, and research-based books. After that, meet the scientists from space research through e-mail and Skype. And ask the question about time travel and wormhole. After that, discuss with tourism department legends and space research department peoples. Finally, conclude.

**Keywords:** Time Travel, Wormhole, Stephen Hawking, Tourism

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## Introduction

The wormhole is a theoretical passage through space-time that could create shortcuts for long journeys across the universe. Wormholes are predicted by the theory of general relativity. Many more legends they, explained the possibility of time travel. They are made the theory of time travel. But all are showing one think that's Wormhole is the only way of time travel.

## Wormhole Theory

The Wormholes were first theorized in 1916, though that wasn't what they were called at the time. While reviewing another physicist's solution to the equations in Albert Einstein's theory of general relativity, Austrian physicist Ludwig Flamm realized another solution was possible. He described a "white hole," a theoretical time reversal of a black hole. Entrances to both black and white holes could be connected by a space-time conduit.

In 1935, Einstein and physicist Nathan Rosen used the theory of general relativity to elaborate on the idea, proposing the existence of "bridges" through space-time. These bridges connect two different points in space-time, theoretically creating a shortcut that could reduce travel time and distance. The shortcuts came to be called Einstein-Rosen bridges, or wormholes.

Wormholes contain two mouths, with a throat connecting the two. The mouths would most likely be spheroidal. The throat might be a straight stretch, but it could also wind around, taking a longer path than a more conventional route might require. Einstein's theory of general relativity mathematically predicts the existence of the wormholes, but none have been discovered to date. A negative mass wormhole might be spotted by the way its gravity affects the light that passes by. Certain solutions of general relativity allow for the existence of wormholes where the mouth of each is a black hole. However, a naturally occurring black hole, formed by the collapse of a dying star, does not by itself create a wormhole.

Also, wormholes for travel would likely need to be artificially constructed, because there is no solid evidence that they exist naturally. "We see no objects in our universe that could become wormholes as they age," Thorne writes in his new book "The Science of Interstellar". By contrast, scientists see huge numbers of stars that will eventually collapse to form black holes. There is a possibility that very, very small wormholes exist in the universe in something called "quantum foam," which may or may not exist in the universe.

## Traveling through the Wormhole

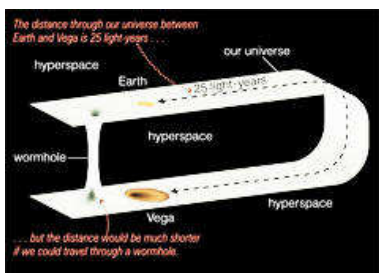
Looking to travel from one star to another, but don't want the trip to take tens of thousands of years? How about using a wormhole? Science fiction is filled with tales of traveling through wormholes. But the reality of such travel is more complicated, and

not just because we've yet to spot one. The first problem is size. Primordial wormholes are predicted to exist on microscopic levels, about 10centimeters. However, as the universe expands, it is possible that some may have been stretched to larger sizes. Another problem comes from stability. The predicted Einstein-Rosen wormholes would be useless for travel because they collapse quickly.

But more recent research found that a wormhole containing "exotic" matter could stay open and unchanging for longer periods of time. Exotic matter, which should not be confused with dark matter or antimatter, contains negative energy density and large negative pressure. Such matter has only been seen in the behavior of certain vacuum states as part of quantum field theory. If a wormhole contained sufficient exotic matter, whether naturally occurring or artificially added, it could theoretically be used as a method of sending information or travelers through space. Unfortunately, human journeys through the space tunnels may be challenging. "The jury is not in, so we just don't know," physicist Kip Thorne, one of the world's leading authorities on relativity, black holes, and wormholes, told Space.com. "But there are very strong indications that wormholes that a human could travel through are forbidden by the laws of physics. That's sad, that's unfortunate, but, that's the direction in which things are pointing."

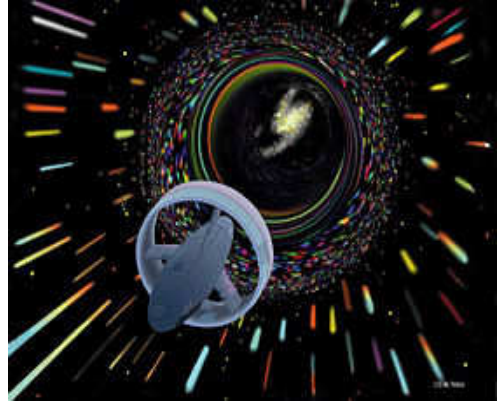
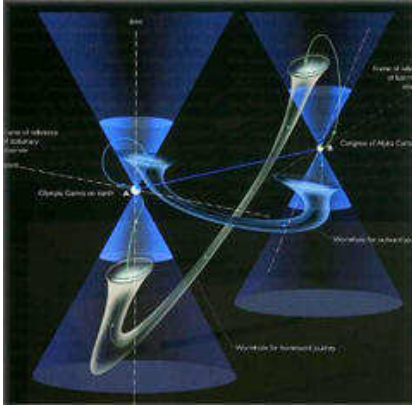
Wormholes may not only connect two separate regions within the universe, they could also connect two different universes. Similarly, some scientists have conjectured that if one mouth of a wormhole is moved in a specific manner, it could allow for time travel. Today's technology is insufficient to enlarge or stabilize wormholes, even if they could be found. However, scientists continue to explore the concept as a method of space travel with the hope that technology will eventually be able to utilize them. "You would need some of the super-super-advanced technology," Hsu said. "Humans won't be doing this any time shortly."

## Faster-Than-Light



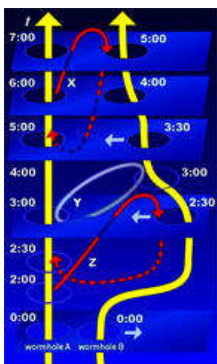
Wormhole travel as envisioned by Les Bossinas for NASA. Digital art by Les Bossinas, 1998. The impossibility of faster-than-light relative speed only applies locally. Wormholes might allow effective superluminal (faster-than-light) travel by ensuring that the speed of light is not exceeded locally at any time. While traveling through a wormhole, subluminal (slower-than-light) speeds are used. If two points are connected by a wormhole whose length is shorter than the distance between them *outside* the wormhole, the time is taken to traverse it could be less than the time it would take a light beam to make the journey if it took a path through the space *outside* the wormhole. However, a light beam traveling through the wormhole would, of course, beat the traveler.

Time Travel



A Wormhole could allow time travel. This could be accomplished by accelerating one end of the wormhole to a high velocity relative to the other, and then sometime later bringing it back; relativistic time dilation would result in the accelerated wormhole mouth aging less than the stationary one as seen by an external observer, similar to what is seen in the twin paradox. However, time connects differently through the wormhole than outside it, so that synchronized clocks at each mouth will remain synchronized to someone traveling through the wormhole itself, no matter how the mouths move around.

This means that anything which entered the accelerated wormhole mouth would exit the stationary one at a point in time before its entry. For example, consider two clocks at both mouths both showing the date as 2000. After being taken on a trip at relativistic velocities, the accelerated mouth is brought back to the same region as the stationary mouth with the accelerated mouth's clock reading 2005 while the stationary mouth's clock read 2010. A traveler who entered the accelerated mouth at this moment would exit the stationary mouth when its clock also read 2005, in the same region but now five years in the past. Such a configuration of wormholes would allow for a particle's world line to form a closed loop in space-time, known as a closed time like the curve.



It is thought that it may not be possible to convert a wormhole into a time machine in this manner; some analyses using the semi-classical approach to incorporating quantum effects into general relativity indicate that a feedback loop of virtual particles would circulate through the wormhole with ever-increasing intensity, destroying it before any information could be passed through it, in keeping with the chronology protection conjecture. This has been called into question by the suggestion that radiation would disperse after traveling through the wormhole, therefore preventing infinite accumulation. In the future its help to develop tourism. Because it's

the part of tourism management.

## Conclusion

The conclusion of this research is that rapid space-travel, or travel back in time or future. Nothing is impossible, everything is possible. One day or one day we can do that. At the time our tourism industry adapted with time traveling. We earn more profit through wormhole time traveling. They would cause great logical problems, so let's hope there's a Chronology Protection Law, to prevent people going back, killing, etc. Whatever it maybe we people can able to handle everything, We make the rule on time travel like resent days bus travel, air travel, and rail travel. So people, ready to move a future and past through wormhole time travel.

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