

# LENGTH CONTRACTION

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## ABSTRACT

The Lorentz length contraction is a fallacy and it's very obvious, the length of an object will not decrease as it speeds up in a situation where there is no friction. Hendrik Lorentz came to the wrong conclusion because he didn't understand what time dilation was, theoretical physicists don't understand what happens when time slows down. The length of an object remains the same in that situation, the only thing that can change is time.

## INTRODUCTION

When you measure the length of an object at rest with a beam of light then you will measure a certain distance, that distance is the speed of light times a certain amount of seconds. But when you measure the length of that object when it travels at a certain speed then time will slow down, so theoretical physicists conclude that the length must contract but that is a fallacy. The amount of seconds will decrease, true, but that doesn't mean that you can conclude that the length contracts. Logic dictates that the length will not contract but theoretical physicists prefer to fool themselves, the only thing that can change is time because the speed of light and the length of that object will remain the same. We know that the amount of seconds will decrease as you measure that object because time slows down, but theoretical physicists don't wonder why that happens. If we want to know what happens when time slows down we need to look at the seconds, what is a second? A second is formed by an atomic clock and that gives us an important clue, the seconds are based on an atomic clock's process and the seconds decrease when that atomic clock speeds up. So if we want to know why time slows down we need to ask ourselves an important question, "what changes when a second is formed?". There is nothing else out there in that situation, just the atoms of that object, the atoms of that atomic clock and "empty" space. We know that the atoms don't change when they speed up and we know that there is no gravity near those atoms in that situation, so the only tangible thing that can change is the speed of space in relation to that object (the atoms). The speed of the object itself is nothing, the reason why time slows down is an increase in the speed of space in relation to the atoms of that object. So we can conclude that space rushes by more quickly when that object speeds up, so logic dictates that time and the formation of a second is affected by the speed of space. And because we know that the seconds are formed by the atomic clock, we need to look at that atomic clock when time slows down.

An atomic clock measures a certain amount of cycles, a second is based on the duration of 9.192.631.770 cycles of radiation corresponding to the transition between two energy levels of the caesium-133 atom (wikipedia). That means that the seconds are affected by the speed of that process, and that process is affected by the speed of space. So if that process slows down then a second will become LONGER because the atomic clock will wait until the 9.192.631.770 cycles are finished, and if that process speeds up then a second will become SHORTER. And that means that an atom's transition between two energy levels is affected by the speed of space, it gets more difficult for an atom to make a transition between two energy levels if space speeds up in relation to that atom. So when that objects speeds up the atomic clock will require more time to finish the 9.192.631.770 cycles, so it might look if time slows down in seconds but the seconds become longer. So when time slows down there are less longer seconds in the same time period, time itself extends. So the length of time (the duration) on that object is in fact the same as the length of time for an observer, but there are more shorter seconds for that observer in that length of time. And that means that certain conclusions in Einstein's special theory of relativity are wrong as well (fallacies), you cannot compare the situation of an observer to the situation of a traveller on that object because there is a difference in the length of the seconds. And because time itself extends when an object speeds up, the length of that object will remain the same and that means that the Lorentz length contraction is a fallacy. And because time changes in length and because space doesn't change in length, we can also conclude that time and space cannot be unified in a fictional space fabric (so spacetime cannot exist).

## CONCLUSION

The Lorentz length contraction and spacetime are fallacies, and there are more fallacies in theoretical physics. That is why theoretical physicists cannot solve the mysteries in the universe, they are lost in mathematical fiction. Most mysteries in the universe are man-made, it's obvious that certain things are unrealistic/unnatural but theoretical physicists prefer to fool themselves that those things are realistic/natural. The foundation of modern theoretical physics is curved spacetime, and it's obvious that spacetime cannot exist. Spacetime is just a mathematic model and it works, but it's as real as the triangles that we use with triangulation and they are not real as well. Time dilation tells us that spacetime doesn't exist and that a gravitatonal wave cannot exist, but it also tells us what the origin of time and gravity is. I explained how I found the origin of time and gravity in my Vixra paper 1607.0495 "Time dilation, time and gravity", gravity is the side effect of time.