

The True Scale of Atoms

Post by “Martin” of December 26, 2023 at 12:03 PM

Quote

the idea that light moves at a consistent speed is only a convention, is this correct?

It is correct in the sense that the equality of the one-way speed of light and the two-way speed of light is a convention as explained in the video linked to in comment #13.

Only the Galileo transformation is compatible with an absolute space. However, electrodynamics proves that instead the Lorentz transformation is correct as explained in the video linked to in comment #14.

The special theory of relativity gets the Lorentz transformation independently. Therefore, electrodynamics is implicitly relativistic.

Different conventions than the equality of one-way speed and two-way speed have the constraint that the result must be compatible with the Lorentz transformation.

Therefore, a different convention might somewhat modify the special theory of relativity but not in a way which would show different experimental results.

None of the possible different conventions would save the absolute space.