

Speed of Light is not a Natural Constant (but representing planet earth as 2-dim-clock)

Manfred U. E. Pohl*

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Translated from German by google.

Abstract

As discussed in previous papers¹, today's definitions of base quantities Length and Time (space-time) by BIPM² are "wrong" due to a faulty reasoning by Einstein. Here it will be briefly summarized how the 5-dimensional space-time as a "measuring instrument" determines the properties of space-time. It is then briefly shown that the speed of light is not a natural constant, but how it is derived from the only natural constant (the circle number π) by radius of the earth and rotational speed of the earth.

1 Speed of light as geometric property of cartesian Space-Time

Einstein's definition of time and space contains an inadmissible circular definition for time and that is why we have so far directed an "irrational" view of the universe. We look at the universe from a perspective outside the universe with our previous "theories". From the point of view of a God who

still stands above our universe and would be omnipotent in relation to it.

This inadmissible premise can (must) be corrected by a rational mutual definition of the three concepts "space", "time" and "movement" in the sense that a "circle" does not represent a surface, but the rotation of a body in space around an axis of rotation. The "circle" thus becomes the concept of "movement" and nominally defines the relationship between space and time in the form

* Correspondence: Manfred U. E. Pohl, Independent Researcher, Germany. Email: contact@manfred-pohl.de

¹ <https://vixra.org/abs/2101.0170> ; <https://vixra.org/abs/2112.0146>

² <https://www.bipm.org/en/measurement-units/si-base-units>

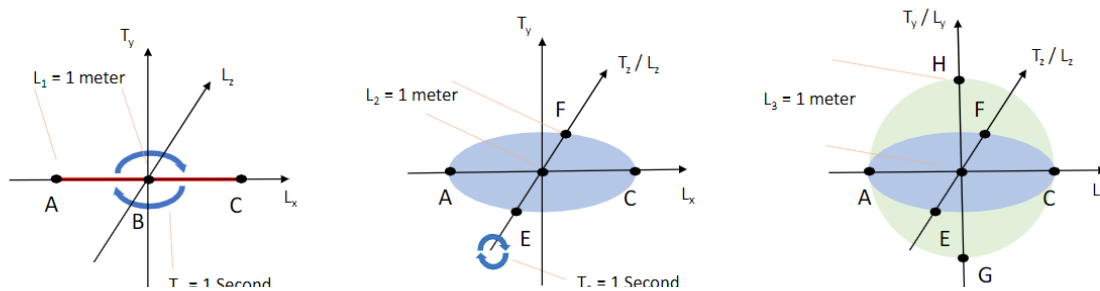
$$\pi \text{ [rotational speed]} := \frac{\text{one(1) unit (second) of Time (T)}}{\text{one (1) unit (meter) of Length (L)}}$$

Thus, "space-time" can be understood as "activity" (mental movement) with which we construct the desired Cartesian space, because without a circle, i.e. without movement, we cannot "construct" an orthogonal coordinate system in which we could calculate a "space" volume as the primary physical property of bodies as L^3 [m³]. Furthermore, only a standardized and nominally defined (volume) observer can be our basic objective measuring instrument.

Construction of the 5 dimensional "clock body" or "observer" $(0,5 \frac{[s]}{[m]}, 0,5 \frac{[s]}{[m]}, 1 \frac{[m]}{[s]}, 1 \frac{[m]}{[s]}, 1 \frac{[m]}{[s]})$

1. \overline{AC} forms the 1st spatial dimension of the length $2 \cdot \overline{BC} = 2 \cdot L_1$ [2 meters]. A rotation of the duration of time T_1 [1 second] with angular velocity $\omega_1 = \frac{1}{T_1}$ in the 1st time dimension (timeline T_y) around the center B creates the 2nd spatial dimension of the route L_2 (\overline{BF}), the orthogonal on \overline{BC} and also has a length of one meter. In the two-dimensional circular surface \overline{BCBF} represent the unit vectors of the x and z axes of the Cartesian coordinate system. The resulting (2-dimensional) "clock body" or observer is thus defined by the physical magnitude of the rotational speed $\pi_1 = \frac{1}{\omega_1 \cdot 2 \cdot L_1} = \frac{T_1}{2 \cdot L_1} = \frac{1}{2} \frac{[Sekunde]}{[Meter]}$. The area of the surface-like observer (or "clock body") is then: circular area = $\pi_1 L_1 L_2 = \frac{T_1 L_2}{2} = \frac{1}{2} [Second \cdot meters]$. The „clock“ is defined in general by the relation $1c = 1 \frac{[m]}{[s]}$, which becomes the speed of light / information in Vacuum, at which every Volume (Body) without mass must travel in empty space.

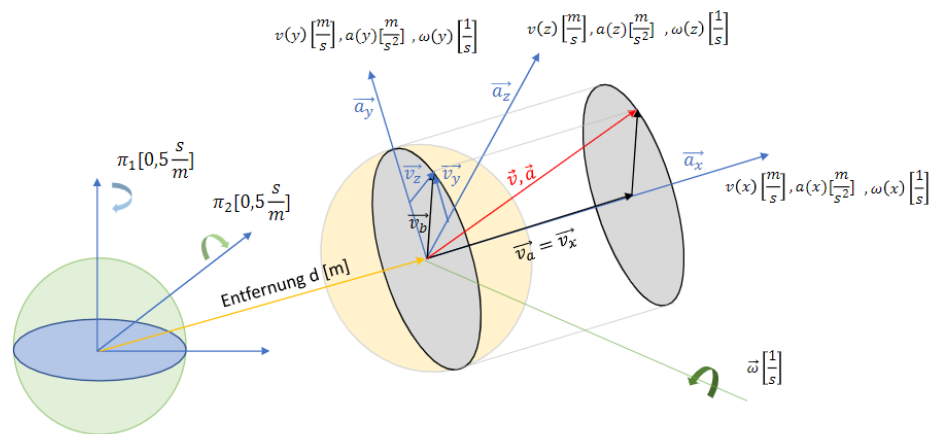
2. By rotation of the 2-dimensional circular surface in the 2nd time dimension (Timeline T_1) with the angular velocity $\omega_2 = \frac{1}{T_2}$ in the duration of time T_2 [1 Sekunde] the result is a three-dimensional spherical volume: the three-dimensional "clock body" or observer. The route \overline{BH} represents the unit vector of the y-axis perpendicular to the other two Unit vectors and their length L_3 is also one meter. The resulting volume-like observer is thus defined by rotational speed π_1 and by rotational speed $\pi_2 = \frac{1}{\omega_2 \cdot 2 \cdot L_2} = \frac{T_2}{2 \cdot L_2} = \frac{1}{2} \frac{[Sekunde]}{[Meter]}$. The volume of the "clock body" is with $\pi_{Uhr} = \pi_1 \cdot \pi_2 = \frac{1}{4} \frac{[s^2]}{[m^2]}$ then $V_{Uhr} = \frac{4}{3} \pi_{Uhr} L_1 L_2 L_3 = \frac{1}{3} [Second^2 \cdot Meter]$ And the spherical surface $O_{Uhr} = 4 \pi_{Uhr} L_1 L_2 = 1 [Second^2]$



5-dimensional space-time $(0,5 \frac{[s]}{[m]}, 0,5 \frac{[s]}{[m]}, 1 \frac{[m]}{[s]}, 1 \frac{[m]}{[s]}, 1 \frac{[m]}{[s]})$

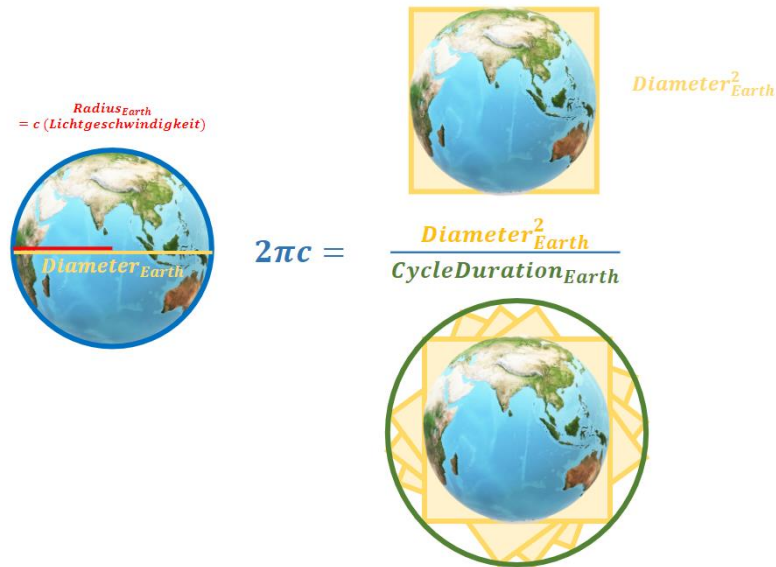
The observer :
 Volume (3D)
 (Rotation speeds π_1 und π_2)
 (Velocity $\vec{v} = 0$)
 (Acceleration $\vec{a} = 0$)

What is observed :
 Surface (2D)
 (Velocity \vec{v} (\vec{v}_x, \vec{v}_y und \vec{v}_z)
 (Acceleration \vec{a} (\vec{a}_x, \vec{a}_y und \vec{a}_z)
 (Rotation frequency $\vec{\omega}$ (ω_x, ω_y und ω_z))



2 Experimental evidence: The speed of light in a vacuum

The fact that the definition of space and time used today is wrong can be tested experimentally in a variety of ways. To illustrate the geometric properties of space-time, it can be shown, for example, that the speed of light in a vacuum, which we "measure" and interpret according to today's physics as a "natural constant", in reality represents nothing else than the circle number π and accordingly differs from the originally "arbitrarily" determined sizes of the meter and the second.



$$\text{Speed of Ligth } c = \frac{\text{Diameter}_{Earth}^2}{2 \cdot \pi \cdot \text{Cycle Duration}_{Earth}}$$

$$\text{Speed of ligth } c = \frac{(12756270 \text{ Meter})^2}{2 \cdot \pi \cdot 24 \cdot 60 \cdot 60 \text{ Seconds}}$$

$$\text{Speed of Ligth } c = 299746275 \frac{m}{s}$$

The deviation of the speed of light c given from the defined period duration to the ratio of the equator diameter is 0.0154% to the value of the speed of light at an altitude of 299792458 m/s as defined by CODATA (Comitee on Data for Science and Technology).