Final Foundations of Physics and Mathematics
to unite General Relativity and Quantum Theroy
by correcting the definition of time in the SI-System of units.

$$\pi := [1; 0; \infty]$$

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11.08.2020

Abstract
Within "Solution to the Problem of Time I, II, III, IV, V and VI, [1,2,3,4] the author showed the idea to step forward to a fresh new mathematics, that advance on Incompleteness by Gödel and General Relativity of Einstein by using a relational mathematics as it was used in ancient Egypt (Rhind-Papyrus).
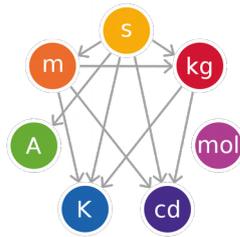
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1. The dimension of time in physics

Stephen Hawking famously said

> If we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason — for then we would know the mind of God.

True, if there is a complete theory, it should be understandable in broad principle by everyone hopefully at a glance. We would expect something that everyone would say: we missed to see the forest because we saw so many trees. Indeed, it turns out to be that easy. To make it short, physics of today (General Relativity and Quantum Theory) is wrong because the very start of our models are wrong:

The units in physics we used to build our models are based on time (second), on which all other measures depend, (except the mol). It is not possible to unite Chemistry and Biology therefore with general relativity and quantum theory as general Relativity and Quantum Theory can never be united in one theory as long as they use different concepts of the base-unit "second" of time.

Today, the second of time is defined as

> The second, symbol s, is the SI unit of time. It is defined by taking the fixed numerical value of the caesium frequency ΔvCs, the unperturbed ground-state hyperfine transition frequency of the caesium 133 atom, to be 9192631770 when expressed in the unit Hz, which is equal to s−1.

There are two options to understand this:

1: time is defined as "nothing" (but a pure number) : 1/ 1 second = 1/ 9192631770

2. time is a physical property of the caesium 133 atom.

Both interpretations are not useful. The first one shows off at the beginning already that we would end at the end with the question : "What is time other than a number (illusion)". It is just the "illusion" that we defined by mistake to be the core of science. A belief in some illusion of God (the everlasting time).
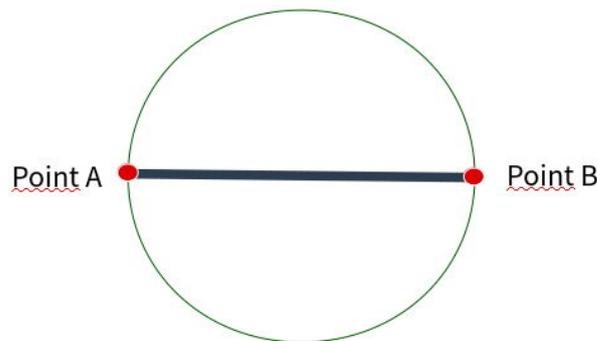
To finish Einsteins Theory of General Relativity we need to use his idea (understanding time as a circle / duration) and detach time from physical material (mass like the Caesium-Atom) in order to fuse space and time to be the only "material". This way mathematics can be fused with theoretical physics into a final monistic model of reality.

2. The definition of space-time: the "complete" theory

The discovery of the real physical nature of time makes it possible to final define the connection between space and time. In "Solution to the Problem of time" [1] the author added to Einsteins postulate of the constancy of light the postulate that the dimension of space must be proportional to the dimension of time. Doing so, we overcome cartesian duality and introduces a neutral Monism as Mind and Matter will then emerge out of space-time as the fundamental principle.

Universal measurement (perception) of space and time and the connection of space and time:

1-Dimensional straight line (movement with velocity meter (unit) of space (dimension) per second (unit) of time (dimension) between Point A (begin) and Point B (end)

Point A ● ——————————— ● Point B

Introduction of Dimensions of time and space via the fundamental concept of motion in general:
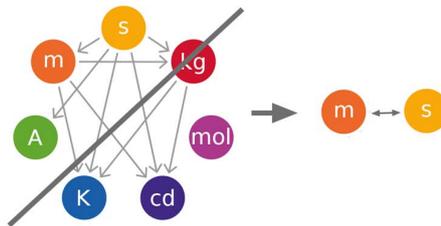
$$v \text{ (velocity of relative movement)} = \frac{x \text{ meter of space}}{y \text{ second of time}}$$

Units of time and space (the fundamental concept of the connection between time and space and the nature of time and space as being the link between mind (time) and matter (space) :

$$c \text{ (velocity of light)} = \text{constant} = \frac{1}{\pi} = \frac{\text{meter of space (diameter of circle A-B)}}{\text{second of time (circumference of circle A-B)}}$$

`Definition of a second of time` : A second of time is the duration (`circumference`) between `location` A and B while the meter of space is defined as the distance between location A and B" second of time$=$meter of space$\cdot\pi$
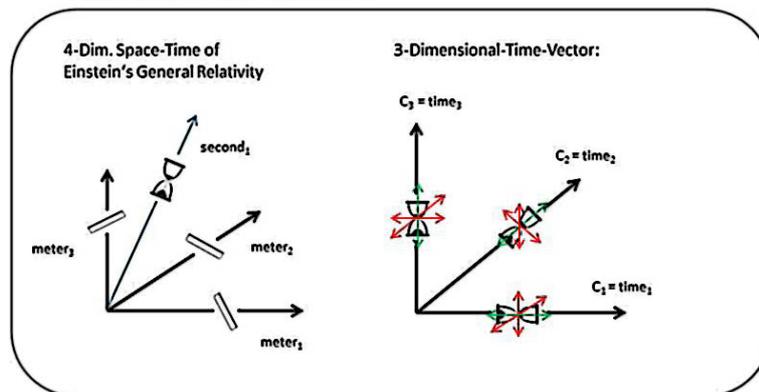
`Definition of a meter of space` : A meter of space is the distance (`diameter`) between `location` A and B while the second of time is defined as the duration (circumference) between location A and B" meter of space$=\dfrac{\text{second of time}}{\pi}$

3. 12-dimensional Universe

After introduction of the first a physical theory of the Universe, it becomes clear that there are needed 12 dimension to model general relativity linked to the standard model of physics (quantum theory).

Following the fundamental concept of motion as origin of space and time, time becomes 3-dimensional as well as space is 3-dimensional. Therefore each spatial dimension is linked to three timelike dimensions while each timelike dimension is linked to three spatial dimensions. The 4 dim. Spacetime in general relativity therefore expand in detail to 4 * 3 = 12 Dimensions of space and time.

The fundamental concept of Energy and completeness is represented with introduction of the idea of squaring a circle in spacetime to connect $\pi := [1;0;\infty]$ within the TOE $1 = 12\pi c^3$ [1] into a concept of Energy like $E = [12 c_1 \pi] \ c_2 \cdot c_3$ where c_1, c_2, c_3 represent 3 spacial dimensions in 4D spacetime and π represents the timelike dimension in 4D spacetime.

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