The ontology of spacetime and the ontology of the wave function!

Mohammed Sanduk
Faculty of Engineering and Physical Sciences, University of Surrey,
Guildford, Surrey, GU2 7XH, UK
m.sanduk@surrey.ac.uk

In 2007 Three Wave Hypothesis (TWH) [1,2] has been considered in angular form, and combine its two dispersion relations in only one relation, this system of the three waves is transferred to a system of two perpendicular rolling circles [3,4]. The position vector of a point in a system of two rolling circles may be transformed to a complex vector under an assumption of partial observation effect [5]. Based on that model an analogy has been presented, with extended consideration for the partial observation in the Hermann Minkowski Meeting in 2017[6].

We can say that the concept of the partial observation and the lab observer shows that there are two types of regions (Fig.1), the mathematical space & time, and the observable spacetime. The classical space & time in macroscopic world is no more than an approximation due to the slow speed in comparison with light speed $v \ll c$.
The mathematical space & time is an absolute case and has no relation with the observer's frame of reference. The observable spacetime is an approximation case due to the partial observation.

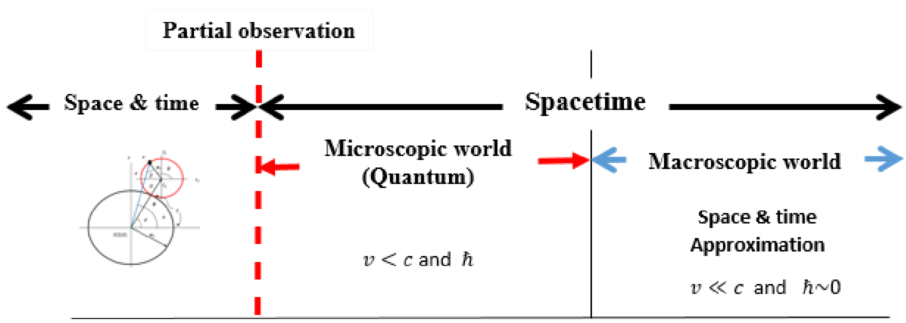

Fig.1 The two regions.

The partial observation works as a filter. This filter separates two different worlds, the real full deterministic world (mathematical) and the physical world (observable) of the complex vector (analogy of wave function). The lab observer and owing to the partial observation cannot recognize the system of two rolling circled and deals with an abstract form. In such a case, the lab observer may use some of the quantum mechanics axioms as a technique.

The observable world (of the lab observer) is defined by a complex vector function and the flat spacetime. Then the both of the quantum world and its spacetime are related to a partially observable system. The approximation of partial observation is not related to the Planck length (minimal physical length).
The combination of space and time that form the interval is related to the system of the two circles combination. The speed of the touch point of the two circles is found to be an analogue for the speed of light.

That analogy [6] may sagest that both of the relativistic quantum mechanics and the special relativity are emergent, and are of the same origin.

The table below shows comparisons between the special relativity equations and those of the analogy.

Conventional definition	Equations of special relativity	Analogical model forms	Analogical definition
Light speed	$c < v$ c is constant	$v < v_p$ v is constant	*Wave speed*
Lorentz factor	$\frac{1}{\sqrt{1-\frac{v^2}{c^2}}}$	$\frac{1}{\sqrt{1-\frac{{v_p}^2}{v^2}}}$	*Lab transformation*
Relativistic mass (angular frequency) $\times \frac{\hbar}{c^2}$	$\omega = \frac{\omega_\circ}{\sqrt{1-\frac{v^2}{c^2}}}$	$\omega_{1m'} = \frac{\omega_{1m}}{\sqrt{1-\frac{{v_p}^2}{v^2}}}$	*Lab transformation*
Length contraction	$\Delta L = \Delta L_\circ \sqrt{1-\frac{v^2}{c^2}}$	$a_{2m'} = a_{2m} \sqrt{1-\frac{{v_p}^2}{v^2}}$	*Lab transformation*
Four-vector $\times \left(\frac{\hbar}{c^2}\right)^2$	$\omega^2 c^2 = \omega^2 v^2 + {\omega_\circ}^2 c^2$	${\omega_{1m'}}^2 v^2 = {\omega_{1m'}}^2 {v_p}^2 + {\omega_{1m}}^2 v^2$	*Lab space*

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