

5 Paradigm Shifts Required for a TOE

My theory shows how the contradictions between relativity and quantum theory should be solved. The theory is simple, yet challenging insofar as the physicist is confronted with five paradigm shifts:

1. The laws of nature are as they must be for perception to be possible. The laws are not derived from nature, but as with Immanuel Kant and C. F. von Weizsäcker from the way nature can be perceived, that is, from metaphysics in a narrower sense (= science of language and methodology of physics).
2. The first principle of propositional logic $A \equiv A$ no longer applies. It contradicts itself, since the two A s are always distinct, temporally or spatially, and are therefore not identical. The identity axiom is replaced by a new "axiom of chirality", which is formulated as in category theory with arrows instead of equals signs, and thus serves as a model for the constant change of nature. Roger Penrose believes it is possible that the problems of theoretical physics can be solved with the category theory.
3. Likewise, I do not use the axiom of infinity because infinity is not perceptible, as Albert Einstein and David Hilbert have already established. The mathematics should therefore do without any form of infinity in the description of nature, i.e. in physics, because its objective is to describe what is perceived. This means doing without the continuum, derivative, integration and irrational numbers like π , e , $\sqrt{2}$. Patrick Suppes has shown that dispensing with the axiom of infinity has a similar effect to dispensing with the parallel postulate in Euclidean geometry. So this opens up similar perspectives to the introduction of curved spaces in the general theory of relativity.
4. The usual four entities in physics, i.e. space, time, matter (= substance, mass, energy, information) and interactions are replaced by a single entity, the event. The event is the atom of Be-ing. It is defined by me mathematically. This also corresponds in essence to Alfred North Whitehead's philosophy of process and reality.
5. The concept of the black hole is expanded: There are black miniholes which are stable due to their high symmetry and black holes within black holes with specific actions to the outside.

5 such paradigm shifts at the same time is too much for most scientists. You must forget most of what you have learned at school. But if I let away one of the 5 shifts the theory does not work any more. That's the main reason, why this rather simple problem has not been solved by thousands of physicists during the last 100 years.

For details please see my website www.hanswehrli.ch.