The Physics of Burkhard Heim and its Applications to Space Propulsion

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Abstract

If one is searching for field propulsion systems for a real interstellar spaceflight, one has to look for a theory which offers the possibilities for
- generating gravitational fields,
- producing gravitational waves
- lowering inertia
- superluminal velocity.

All of these four requirements seem to be fulfilled by the 6-dimensional unified fully geometrised quantum field theory of Burkhard Heim, which has been proven to be correct, because it supplies a suitable formula for all known particle masses (ground and excited states), as well as the correct values of coupling constants.

The knowledge of the internal structure of elementary particles makes it possible, in principle, to alter their properties, such as inertia.

The physicist Burkhard Heim, who deceased on January 14th , 2001, in Northeim, near Goettingen, was the German equivalent to Stephen Hawking and one of the greatest German physicists. Since he left the *Max-Planck-Institute* in Goettingen in 1954 because of his bodily handicap (he lost his eyes, his hearing and his hands by an accident) he worked privately. When he published his theory in two voluminous books (written in German, about 600 pages) in 1979 and 1984, nobody could believe that Heim discovered the unified mass formula. And nobody remembered that he had become famous in 1959, when he proposed a new propulsion system for spaceflight.

In this paper the author will give a short overview of Heim's theory and then will deduce some experiments to manipulate gravity. Heim started with Einstein's General Relativity Theory, but modified it for application in the microscopic range. Here, the field equations become eigenvalue equations. For invariance reasons Heim had to introduce a 6-dimensional manifold. The existence of a smallest area required the computation with differences rather than with differentials, and with selectors instead of tensors. According to Heim, Einstein's assumption of one single metric was too simple. He introduced three partial structures, which constitute four possible metrical tensors by correlations. This complicated geometry leads to 1956 eigenvalue equations from which it is possible to deduce the mass spectrum of elementary particles and to describe their internal structure fluxes. Matter consists of an exchange of maxima and minima of condensations of the smallest areas in subspaces of an R_6. Contrary to vacuum fluctuations, matter exists when the geometrical exchange processes always return to their starting point. These geometrical fluxes produce a spin. Since this spin tends to stay orthogonal to the vector of world velocity, each acceleration leads to a resistance force or inertia.

There are several possible ways to generate gravitational fields and gravitational waves in Heim's theory. A theoretical possibility consists in the generation of gravitons from neutrons. The generation of acceleration fields has been investigated by the spaceflight company DASA. Heim himself proposed to test the contrabaric effect predicted by his theory. For financial reasons these experiments could not be finished.

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I.v.Ludwiger, Jan. 17, 2005