

Essay 29: The Crisis In Contemporary Physics

The crisis in contemporary physics is known to almost all scientists worldwide judging by the feedback activity to www.aias.us. Several of these essays have attempted to explain it in simple terms for the general reader. It started in late 2010 with an attempt to find the photon mass from Compton scattering (UFT 158). It became clear that the most fundamental theories of twentieth century physics are flawed irretrievably, being variations on a mirage. They were replaced in UFT 158 ff. and UFT 171 with R theory, which is derived directly from the wave equation of ECE theory. In UFT 179, it has been found that no metric based theory of general relativity can be compatible with the results of UFT 158 ff. and 171, a result which means essentially that standard physics is extinct.

A metric is a device that explains geometry in a particular way. It is a tensor, a kind of matrix. The metric of three dimensional Euclidean space is a 3×3 unit diagonal matrix, and is denoted $\text{diag}(1, 1, 1)$, meaning that the diagonal are each 1, and the other entries are 0. The metric of special relativity is denoted $\text{diag}(1, -1, -1, -1)$, meaning that it is a 4×4 diagonal matrix with entries 1, -1, -1 and -1, with all other entries zero. The increase in dimensionality from 3×3 to 4×4 means that Euclidean space has become spacetime, a concept introduced by Lorentz and others. The metric $\text{diag}(1, -1, -1, -1)$ is used in Compton scattering theory of the standard type, a theory of special relativity in which the photon mass is dogmatically zero, always a sign a trouble. In late 2010 it was found that any type of particle collision theory based on such a metric becomes severely self inconsistent. Some of the ramifications have been dealt with in previous essays and talks.

The only way out of that morasse was to adopt general relativity for particle interaction theory. The received opinion of general relativity is due to Einstein and others, and consists of solving a field equation for a metric. The latter becomes for example $\text{diag}(n, -m, -1, -1, -1)$ in a spherically symmetric spacetime. Unfortunately, the Einstein field equation is now accepted as being incorrect due to lack of torsion, and a book on this refutation has just been published by Cambridge International Science Publishing. It is M .W. Evans, S. Crothers, H. Eckardt and K. Pendergast, *A Criticisms of the Einstein Field Equation* (2011). Even worse for the old physics, it has just been found in UFT 179 that no metric based theory of general relativity can explain the results of UFT 158 ff and 171.

This means that the tests of the metric based theory of Einstein and others, carried out at huge expense, have produced a mirage, a distortion of the truth. It is easy to see this by realizing that the Einstein field equation cannot explain the basics of a whirlpool galaxy, it fails hopelessly to explain the motion of the stars of the galaxy, called the velocity curve. The stop gap measure of dark matter has also failed following the recent negative result of an experiment intended to measure dark matter. Despite this, satellite after expensive satellite has been sent up to measure the failed Einstein theory in the solar system, the least suitable test of the theory because deviations from Newtonian dynamics are so small in the solar system.

In contrast, it is now accepted that the ECE theory can explain a whirlpool galaxy quite easily with the use of the quantity ignored catastrophically in the old physics: spacetime torsion. It is instinctively obvious that the whirlpool of stars is caused by a rotational motion or torsion of spacetime, and not by a curving motion as in the old physics. Dark matter was always a hopelessly inadequate reaction to the total failure of the Einstein theory in galactic dynamics. So the old physics has limped along for fifty years in a state of hypocrisy. It claims that Einstein works well and at the same time does not work at all. The old physics makes hugely elaborate and expensive claims about fundamental particles, but ignores the complete self inconsistency revealed by UFT 158 ff and UFT 171. The old physics is designed around

the need to sustain a huge budget, whatever the data and reason produce. This is the complete opposite of natural philosophy, it is big business as usual.

With the publication of UFT 179 in mid April 2011 the crisis has deepened, because it has been found that the energy equation of general relativity has the same format as the Einstein energy equation in special relativity. In a limited context this is a new and useful result, but it also means that mass in any metric based theory of general relativity must be constant. In UFT 158 ff and in UFT 171 a constant mass theory was shown to be wildly self inconsistent. The only remedy at present is the ECE wave equation, the remedy of asking for a huge amount of money as if it is there by right will not cure any crisis, it will deepen it. This news will come as a relief to the taxpayer, already groaning under a burden of heavy taxation and government cuts. Any government would be very foolish indeed to spend billions on a physics that has become meaningless. Better to channel those funds where they are desperately needed - the search for new energy. Here again ECE theory is accepted to have led the way for eight years.