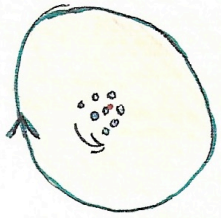
NOTE TO READER: Fig 5 is missing from this script. Michael left a note stating that he had removed that page and put in a different script, which I do not have. However the following that I found, appears to fit the legends below, I cannot say if it is THE SAME drawing or not.

I

(1)

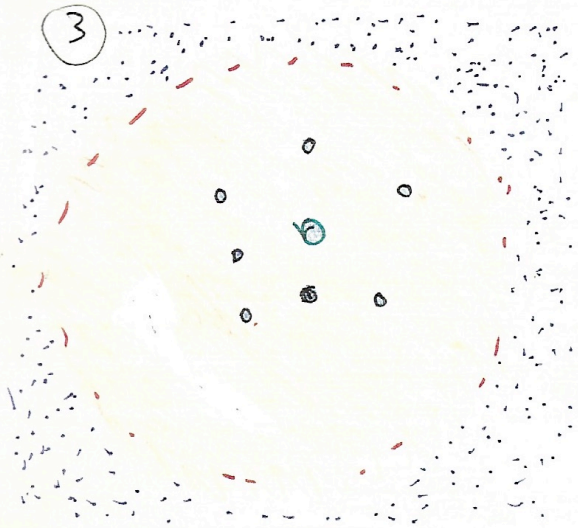
OLYMPIAN VIEW

(2)



OLYMPIAN VIEW

(3)



In (3) the extra-universal void turns up inside each elementary particle/material observer.

material observer's viewpoint is from the surface of:

(1) (2) & (3) have the same topology, but (3) is the inverse of (2), the view of a material observer.

surface of space-time hypersphere

finite & growing

Particle surface/universal event horizon — growing by quanta

INFINITE, NOT TO BE ERODED

Extra-universal void

Background radiation source — material observer's view / Olympian view

Direction of rotation/electron charge

Zero volume

Fig 5 explores the topology of the universe. In (1) we have the general topology of the universe shorn of some dimensions to allow it to be drawn on paper. The three dimensions of space have been stepped down to two , and the infinitely thin two-dimensional surface (shaded) which this makes has been formed into the surface of a sphere. The holes cut into this surface , with arrowed perimeters, represent elementary particles , and their combined surfaces FORM THE UNIVERSE EVENT HORIZON. Anywhere outside the volume of the universe is the infinitely large void into which the universe expands. That void pervades the particles and both sides of the shaded space-surface, and all parts of the void are joined together. The drawing is a 'snapshot' lacking the dimension of time. If time were included , the holes would rotate in the directions of the arrows, and they would orbit each other. The resulting space-time-surface would be expanding, and new holes or elementary particles would be forming in pairs with the opposite rotation (representing opposite electrical charge) in between those that already existed. The background radiation photons would be seen by each particle, which can also be taken AS A METERIAL OBSERVER , coming from ALL directions. The space from which we are viewing (1) – the 'matrix space' – is the infinite void into which the model expands. CLEARLY THAT VOID IS MULTI-DIMENSIONAL.

We are viewing the space of the universe represented as the surface of a sphere, treating that as a three-dimensional object. The 'matrix space' is the space in which the Olympian observer operates, so that to the four dimensions we know are lurking in the universe volume, we should add another four (three of space and one of time) to assess the dimensionality of what we are really dealing with. The space outside the universe (inside each of its elementary particles) has at least EIGHT DIMENSIONS. It may have an infinite dimensionality , DEPENDING ON THE ABILITY OF THE OLYMPIAN OBSERVER TO VISUALUSE THEM.

In (2) we have an object with the SAME TOPOLOGY AS (1). All that has happened is that one particle has been dilated until the space-surface is stretched out flat, like a drum-skin inside it , the other particles represented as rotating holes in it which diminish in 'size' the closer they are towards the centre. This operation could have been done upon ANY PARTICLE IN (1) where of all the trillions that already exist in the real universe , only half a dozen have been depicted.

The universe spins as if this operation HAD been done on all the particles, and this accounts for gravitation. There is a neat, self-consistent algebra which one can trace out between Schwarzchild's solution for the radius of a black hole and the gravitational equations of Newton evoked by THIS GEOMETRY and THE INERTIAL FORCES WHICH WOULD BE CAUSED BY SPIN IN SUCH AN OBJECT.

Actually, while the universe has a REAL gravitational radius according to Schwarzchild, the elementary black hole particles into which it breaks up on inversion have only a phantom gravitational radius.

Examining figure 5 will show that there could be a set of directions from the surface of a particle into the extra-universal void which has the length

Rg=2Gm/c2

But many directions INTO a particle have an INFINITE LENGTH. Every point on the surface of such particles spirals into the void outside the universe with a track speed of c but a net radial 'impansion' (as opposed to expansion) at c/root2.

In (2) we see an indication that gravitation could be an inertial effect. Consider the surrounding particle in that diagram. Its surface may be going around the rest of the universe , which it encloses in this geometry. But equally, on fundamental relativistic grounds, the rest of the universe could be rotating inside it in the other direction. Other direction? Consideration of the figure will show that there must be two directions of omnispin AT LEAST. One of these omnispin directions comprises of EVERY GREAT CIRCLE WHICH A POINT ON THE SURFACE OF A PARTICLE COULD FOLLOW, and the other omnispin direction is all those SAME geodesics TRAVERSED IN THE OPPOSITE DIRECTION.

In (2) the shading is heavier towards the centre of the drawing to indicate two things: that IN THIS VIEW the space-time of the universe becomes progressively condensed towards the centre, and that AT the centre in this view, there is the source of the background radiation flux, which is wrapped around the initial singularity of energy at the precise universe centre.

In (3) we still have an object with the same topology as (1) but now we have a bird's eye view of a material observer's impression of the world. All that has happened is that there has been a topological inversion of (2). The enclosing particle in (2) has been inverted, so that it now sees itself SURROUNDED by all the other particles. (2) and (3) are OPPOSITE GEOMETRIES OF THE SAME TOPOLOGY. The centre of the universe has now been shifted to the perimeter of existence for the enclosing particle , which in (3) is the CENTRAL particle. ANY particle to which you do this inversion , sees the background radiation source as (almost) the most distant thing in any direction. It sees the central singularity – the dashed perimeter in (3) as the most distant thing in any direction. The perimeters would not coincide exactly for different material observers . Each would see the singularity as most distance – at a distance of C/H in any direction. But for practical purposes, material observers who are in the same galaxy see the background flux coming from perimeters that pretty well coincide.

Let us take (2) of Fig 5 and say, as an Olympian observer is entitled, that the enclosing particle spins about the universe , and that the rest of the universe is not rotating inside it. If (2) were DRAWN TO SCALE – a matter I shall discuss further on – then the 'rest of the universe' would be an extremely small point at the centre of the diagram. For most of the time particles remain at such a distance from each other that if any particle is taken as the enclosing particle, ALL the others are

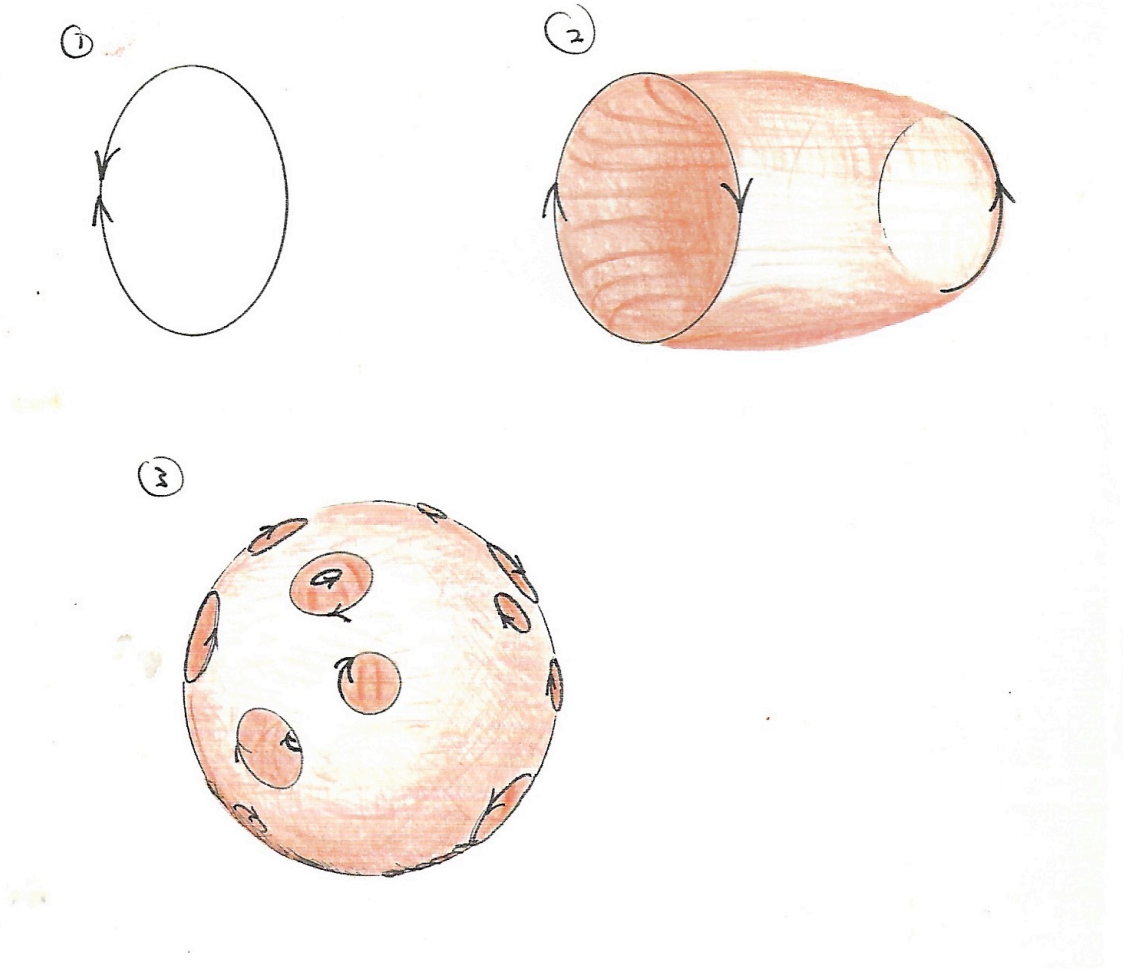
vanishingly small at its centre. We could represent the 'rest of the universe' as a point, and say, for a test case, that the point does not revolve, but that the enclosing particle does. We find the angular momentum of this amount of matter , that is, of the mass of the enclosing particle, which exploration of my model reveals would be

(65) $$\frac{I\omega}{m} = \frac{Gm_0^2}{\sqrt{2\pi}c} \qquad \therefore \quad m_0 = \left(\frac{\sqrt{2\pi}c\,I\omega}{G}\right)^{1/2}$$

Now we change our Olympian reference point to STOP the enclosing particle revolving (in the omnispin mode of course) AND THIS TRANSFERS ITS ANGULAR MOMENTUM TO THE 'REST OF THE UNIVERSE' WHICH NOW REVOLVES INSIDE THE PARTICLE. The 'rest of the universe' will, as a result, have an acceleration towards every point on the surface of the enclosing particle. If the enclosing particle is approached closely by another , it grows in size at the centre of the circle, blotting out the 'rest of the universe' and central singularity in this Olympian view. Compared to the approaching particle which comes to within a Fermi or so , the effects of the acceleration of the 'rest of the universe' is now negligible. We can consider the case of just two particles , using the one to enclose the other . If we consider first one particle and THEN the other as enclosing, we find they are mutually attracted, and we can show that attraction precisely mimics gravitation, although it is an effect of angular momentum.

Figure 5 (1) shows the topology of the universe volume and its relation to the universe event horizon, but the universe is not necessarily IN that geometry. Figure 5 (1) is the basic, general topology , and (2) and (3) are two of its opposite EQUALLY VALID geometries. They are equally valid because which way in or out IS a lone object in an infinitely large void?

fig 11



Notice that in Fig 11 (1) and (2) , and in Fig 7.c both particles are filled with the SAME extra universal void. In (11.1) , which is the initial , superimposed two electrons (of opposite charge) , the infinitely large void is INSIDE and OUTSIDE both particles. It is equally valid to look at (1) as though IN its circular confine is the same place as OUTSIDE it. If it were turned inside out at that stage, it would be identical in geometry before and after the inversion. The equal validity of the universe , in physical terms, when it is viewed inside-out or the 'right way about' is a continuing attribute , not confined to the initial instant. It is the relativistic situation of the universe as a lone object in an infinitely large void, lacking all conceptual landmarks or boundary, that gives it equally valid , opposite geometries. At first appraisal, the universe model in this Olympian view cannot spin in relation to anything outside it and it cannot NOT spin either, for there is nothing against which to measure rotation OR LACK OF IT in the infinite void in which the universe is alone as the ONLY physical object. One finds that Special Relativity allows such an

object only one speed of surface rotation, only one speed of expansion, and only one linear speed through the void , seen from the Olympian standpoint. All three speeds are the same , c/root2

The inertial forces engendered by the spin of the universe with its unsuspected opposite geometries , accounts for the forces of nature, certainly it accounts for gravitation, of which my work leaves little doubt.

LEGEND FOR Fig 5a

d is a finite distance which can be calculated , and it is in a direction at right angles to the three axes of physical direction inside the universe. Inside the universe we can only manage to put three 'straight' lines at right angles to each other – any more, we think, and it becomes less than 90 degrees between main directions. You cannot do such a twisting and turning as required by the topology of the universe event horizon unless you work in an otherwise empty and infinitely large void by FUNDAMENTAL RELATIVISM, gives the universe the necessary freedoms to motion to produce the four forces by inertial effect.
Special relativity works with this model, but it would not work if its algebra were different, and if the general equation were different. This means that models different from mine won't work with special relativity . General Relativity – on which I do not claim to be an expert, fits with Special Relativity , and so it remains in charge , its task eased by dealing with particles that DO NOT CONTAIN THE ANNOYING GRAVITATIONAL SINGULARITIES THAT IT HAS BEEN ASKED TO DEAL WITH HITHERTO.