

112(4): Theoretical Refutation of Big Bang and Black Holes

Big Bang is based on the assumption:

$$a = 0 \quad \text{--- (1)}$$

is the Friedmann equation of the FLRW metric. It was shown in paper 93 that this metric violates:

$$D \wedge \tilde{T} := \tilde{R} \wedge \eta \quad \text{--- (2)}$$

so is unphysical. All the metrics used in the standard model of cosmology are incorrect because they violate eq. (2). Cosmology must be based on the EFE field equations (2) and:

$$D \wedge T := R \wedge \eta \quad \text{--- (3)}$$

The assertion of black holes is based on the so-called Schwarzschild metric in the condition:

$$ds^2 = 0 = - \left(1 - \frac{2GM}{c^2 r} \right) c^2 dt^2 + \left(1 - \frac{2GM}{c^2 r} \right)^{-1} dr^2 \quad \text{--- (4)}$$

$$\text{i.e.} \quad \frac{dt}{dr} = \pm \left(1 - \frac{2GM}{c^2 r} \right)^{-1} \quad \text{--- (5)}$$

A change of co-ordinates is used to derive "event horizons" and "black holes."

However, the metric (4) is a simple

2) consequence of spherically symmetric spacetime. It can be derived from the simple theorem:

$$ar = \frac{r}{b} = \int dr - (6)$$

which is similar to Birkhoff's Theorem. (rotter's criticism of black holes is therefore the criticism of the way in which the simple eq. (5) is interpreted. Furthermore, there is no reason to assume that the spherical symmetry of spacetime represented by eq. (6) implies an initial singularity or region defined as "black holes".

Conclusions

The whole of standard model cosmology is easily demonstrated to be incorrect. This pseudo-scientific subject illustrates the danger of leaving too much for mathematics, without proper regard to experimental data.
