Figure 1

Speed of sound = $V = c(de/dp)^{1/2}$

With a cosmological constant Λ, effectively $e = -p = \Lambda/8\pi$ & $V = ic$.

If $p = e/3 - b^2/e$:

For $e \gg b$, $p = e/3$ (radiation).

For $e \ll b$, $p < 0$ and the model expands exponentially like an empty universe with $\Lambda = 4\sqrt{3}\pi b$.

$V = c[1/3 + b^2/e^2]^{1/2}$ and $V > c$ when e drops below $b\sqrt{3}/2$.

$$\Phi = Q/d \quad \text{[Potential due to a static charge]}$$

$$\Phi(t) = Q(t \pm d/c)/d \quad \text{[Potentials due to a varying source]}$$

$$\Phi(t) = Q(t - d/c)/d \quad \underline{\text{Retarded}}$$

$$\Phi(t) = Q(t + d/c)/d \quad \underline{\text{Advanced}}$$

Sun) Earth

Retarded signals received
At 9 p.m.

Neptune
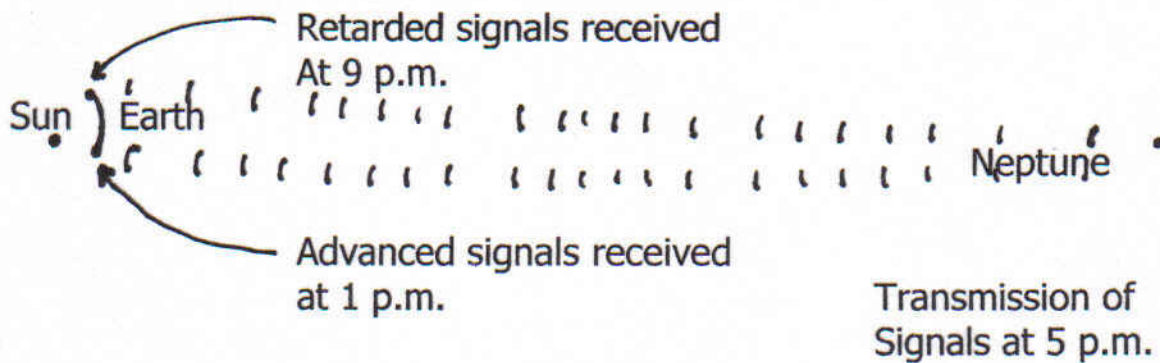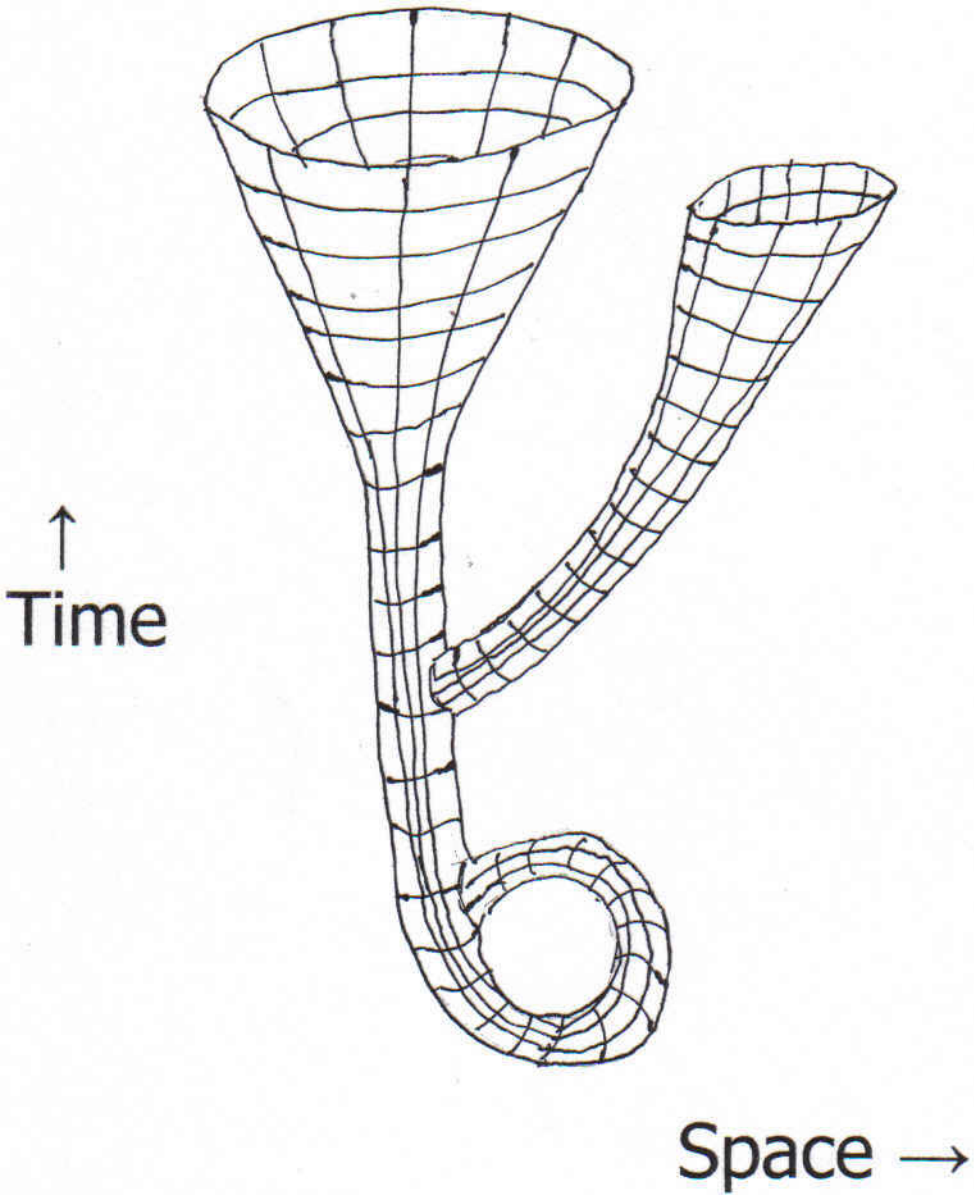
Advanced signals received
at 1 p.m.

Transmission of
Signals at 5 p.m.

Figure 2

↑
Time

Space →

The Li – Gott Multiverse

Figure 3