Re Kerr Metric

$$ds^2 = -\left(1 - \frac{r_s r}{\rho^2}\right)c^2dt^2 + \frac{\rho^2}{\Delta^2}dr^2 + \rho^2 d\theta^2 + \left(r^2 + a^2 + \frac{r_s r a^2}{\rho^2}\sin^2\theta\right)\sin^2\theta\, d\phi^2 + \frac{2r_s r a}{\rho^2}c\,dt\,d\phi \quad \rightarrow (1)$$

where: $r_s = \frac{2GM}{c^2}$, $a = \frac{J}{mc}$,

$$\rho^2 = r^2 + a^2\cos^2\theta,$$

$$\Delta^2 = r^2 - r_s r + a^2$$

Spacetime around a rotating mass.

Re Kasner Metric

$$ds^2 = -c^2dt^2 + \sum_{j=1}^{D-1} t^{2p_j}(dx^j)^2 \quad \rightarrow (2)$$

where the exact EH solution is given by:

$$\sum_{j=1}^{D-1} p_j = 1, \quad \sum_{j=1}^{D-1} p_j^2 = 1, \quad D > 3.$$

Anisotropic universe without matter.