Metric

$$ds^2 = -dt^2 + \left(1 - f(r,t)\right)dr^2 + r^2\,d\theta^2 + r^2\sin^2\theta\,d\phi^2$$

Curvature Invariants

$$R = \frac{r^2 f(r,t)\frac{\partial^2}{\partial t^2}f(r,t) - \frac{r^2\left(\frac{\partial}{\partial t}f(r,t)\right)^2}{2} - r^2\frac{\partial^2}{\partial t^2}f(r,t) - 2r\frac{\partial}{\partial r}f(r,t) + 2f^2(r,t) - 2f(r,t)}{r^2\left(f^2(r,t) - 2f(r,t) + 1\right)}$$

$$R_{\mu\nu}R^{\mu\nu} = \frac{r^4\left(2\left(f(r,t)-1\right)\frac{\partial^2}{\partial t^2}f(r,t) - \left(\frac{\partial}{\partial t}f(r,t)\right)^2\right)^2 + r^2\left(r\left(2\left(f(r,t)-1\right)\frac{\partial^2}{\partial t^2}f(r,t) - \left(\frac{\partial}{\partial t}f(r,t)\right)^2\right) - 4\frac{\partial}{\partial r}f(r,t)\right)^2 + 32r^2\left(f(r,t)\right.}{16r^4\left(f(r,t)-1\right)^4}$$

Stress–Energy Tensor

$$T_{\mu\nu} = \left(\begin{array}{c}\frac{2r(f(r,t)-1)^3\frac{\partial^2}{\partial t^2}f(r,t) + r(f(r,t)-1)^2\left(\frac{\partial}{\partial t}f(r,t)\right)^2 - 2r(f(r,t)-1)\frac{\partial^2}{\partial t^2}f(r,t) - r\left(\frac{\partial}{\partial t}f(r,t)\right)^2 + 4(f(r,t)-1)^3\left(-2f(r,t)-\frac{\partial}{\partial r}f(r,t)+2\right) - 4(f(r,t)-1)^2\frac{\partial}{\partial r}f(r,t)}{64\pi r(f(r,t)-1)^4} \\ -\frac{\frac{\partial}{\partial t}f(r,t)}{16\pi r(f(r,t)-1)} \\ 0 \\ 0\end{array}\right.$$