Schwarzschild Metric in spherical coordinates with a variable spherically symmetric matter density:

$\boxed{x^\mu}$

$x^0 = t.$
$x^1 = r.$
$x^2 = \theta.$
$x^3 = \phi.$

$\boxed{g_{\mu\nu}}$

$g_{00} = \frac{r-2m}{r}.$
$g_{01} = 0.$
$g_{02} = 0.$
$g_{03} = 0.$
$g_{10} = 0.$
$g_{11} = -\frac{r}{r-2m}.$
$g_{12} = 0.$
$g_{13} = 0.$
$g_{20} = 0.$
$g_{21} = 0.$
$g_{22} = -r^2.$
$g_{23} = 0.$
$g_{30} = 0.$
$g_{31} = 0.$
$g_{32} = 0.$
$g_{33} = -\sin(\theta)^2 r^2.$

$\boxed{\sqrt{\ } = \sqrt{-\det(g_{\mu\nu})}}$

$\sqrt{\ } = \sqrt{\sin(\theta)^2 r^4}.$

$\boxed{g^{\mu\nu}}$

$g^{00} = \frac{r}{r-2m}.$
$g^{01} = 0.$
$g^{02} = 0.$
$g^{03} = 0.$
$g^{10} = 0.$
$g^{11} = -\frac{r-2m}{r}.$
$g^{12} = 0.$
$g^{13} = 0.$
$g^{20} = 0.$
$g^{21} = 0.$
$g^{22} = -\frac{1}{r^2}.$
$g^{23} = 0.$
$g^{30} = 0.$
$g^{31} = 0.$
$g^{32} = 0.$
$g^{33} = -\frac{1}{\sin(\theta)^2 r^2}.$

$\boxed{\Gamma^\sigma_{\mu\nu}}$

$\Gamma^0_{00} = 0.$
$\Gamma^0_{01} = \frac{m}{(r-2m)r}.$
$\Gamma^0_{02} = 0.$
$\Gamma^0_{03} = 0.$
$\Gamma^0_{10} = \frac{m}{(r-2m)r}.$
$\Gamma^0_{11} = 0.$
$\Gamma^0_{12} = 0.$
$\Gamma^0_{13} = 0.$
$\Gamma^0_{20} = 0.$
$\Gamma^0_{21} = 0.$
$\Gamma^0_{22} = 0.$
$\Gamma^0_{23} = 0.$
$\Gamma^0_{30} = 0.$
$\Gamma^0_{31} = 0.$
$\Gamma^0_{32} = 0.$
$\Gamma^0_{33} = 0.$

$\Gamma^1_{00} = \frac{(r-2m)m}{r^3}.$
$\Gamma^1_{01} = 0.$
$\Gamma^1_{02} = 0.$
$\Gamma^1_{03} = 0.$
$\Gamma^1_{10} = 0.$
$\Gamma^1_{11} = -\frac{m}{(r-2m)r}.$
$\Gamma^1_{12} = 0.$
$\Gamma^1_{13} = 0.$
$\Gamma^1_{20} = 0.$
$\Gamma^1_{21} = 0.$
$\Gamma^1_{22} = -r + 2m.$
$\Gamma^1_{23} = 0.$
$\Gamma^1_{30} = 0.$
$\Gamma^1_{31} = 0.$
$\Gamma^1_{32} = 0.$
$\Gamma^1_{33} = -(r-2m)\sin(\theta)^2.$

$\Gamma^2_{00} = 0.$
$\Gamma^2_{01} = 0.$
$\Gamma^2_{02} = 0.$
$\Gamma^2_{03} = 0.$
$\Gamma^2_{10} = 0.$
$\Gamma^2_{11} = 0.$
$\Gamma^2_{12} = \frac{1}{r}.$
$\Gamma^2_{13} = 0.$
$\Gamma^2_{20} = 0.$
$\Gamma^2_{21} = \frac{1}{r}.$
$\Gamma^2_{22} = 0.$
$\Gamma^2_{23} = 0.$
$\Gamma^2_{30} = 0.$
$\Gamma^2_{31} = 0.$
$\Gamma^2_{32} = 0.$
$\Gamma^2_{33} = -\cos(\theta)\sin(\theta).$

$\Gamma^3_{00} = 0.$
$\Gamma^3_{01} = 0.$
$\Gamma^3_{02} = 0.$
$\Gamma^3_{03} = 0.$
$\Gamma^3_{10} = 0.$
$\Gamma^3_{11} = 0.$
$\Gamma^3_{12} = 0.$
$\Gamma^3_{13} = \frac{1}{r}.$
$\Gamma^3_{20} = 0.$
$\Gamma^3_{21} = 0.$
$\Gamma^3_{22} = 0.$
$\Gamma^3_{23} = \frac{\cos(\theta)}{\sin(\theta)}.$
$\Gamma^3_{30} = 0.$
$\Gamma^3_{31} = \frac{1}{r}.$
$\Gamma^3_{32} = \frac{\cos(\theta)}{\sin(\theta)}.$
$\Gamma^3_{33} = 0.$

$\boxed{R_{\mu\nu}}$

$R_{00} = 0.$
$R_{01} = 0.$
$R_{02} = 0.$
$R_{03} = 0.$
$R_{10} = 0.$
$R_{11} = 0.$
$R_{12} = 0.$
$R_{13} = 0.$
$R_{20} = 0.$
$R_{21} = 0.$
$R_{22} = 0.$
$R_{23} = 0.$
$R_{30} = 0.$
$R_{31} = 0.$
$R_{32} = 0.$
$R_{33} = 0.$

$\boxed{R^{\mu}_{\ \nu}}$

$R^0_{\ 0} = 0.$
$R^0_{\ 1} = 0.$
$R^0_{\ 2} = 0.$
$R^0_{\ 3} = 0.$
$R^1_{\ 0} = 0.$
$R^1_{\ 1} = 0.$
$R^1_{\ 2} = 0.$
$R^1_{\ 3} = 0.$
$R^2_{\ 0} = 0.$
$R^2_{\ 1} = 0.$
$R^2_{\ 2} = 0.$
$R^2_{\ 3} = 0.$
$R^3_{\ 0} = 0.$
$R^3_{\ 1} = 0.$
$R^3_{\ 2} = 0.$
$R^3_{\ 3} = 0.$

$\boxed{R}$

$R = 0.$

$\boxed{G^{\mu}_{\ \nu}}$

$G^0_{\ 0} = 0.$
$G^0_{\ 1} = 0.$
$G^0_{\ 2} = 0.$
$G^0_{\ 3} = 0.$
$G^1_{\ 0} = 0.$
$G^1_{\ 1} = 0.$
$G^1_{\ 2} = 0.$
$G^1_{\ 3} = 0.$
$G^2_{\ 0} = 0.$
$G^2_{\ 1} = 0.$
$G^2_{\ 2} = 0.$
$G^2_{\ 3} = 0.$
$G^3_{\ 0} = 0.$
$G^3_{\ 1} = 0.$
$G^3_{\ 2} = 0.$
$G^3_{\ 3} = 0.$

$\boxed{G}$

$G = 0.$

$$\boxed{G^{\mu}{}_{\nu:\mu} = 0}$$

$$G^{\mu}{}_{0:\mu} = 0.$$
$$G^{\mu}{}_{1:\mu} = 0.$$
$$G^{\mu}{}_{2:\mu} = 0.$$
$$G^{\mu}{}_{3:\mu} = 0.$$

$$\boxed{g^{\mu\nu}\,\Gamma^{\lambda}_{\mu\nu} = 0?}$$

$$g^{\mu\nu}\,\Gamma^{0}_{\mu\nu} = 0.$$
$$g^{\mu\nu}\,\Gamma^{1}_{\mu\nu} = -6\frac{r^4 m}{(r-2m)^2} + 2\frac{m}{(r-2m)^2} + 16\frac{m^5}{(r-2m)^2 r^4} + \frac{r^5}{(r-2m)^2} - 6\frac{\sin(\theta)^4 r^4 m}{(r-2m)^2} + 24\frac{m^3}{(r-2m)^2 r^2} + 12\frac{r^3 m^2}{(r-2m)^2} - 8\frac{\sin(\theta)^4 r^2 m^3}{(r-2m)^2} - 8\frac{m^2}{(r-2m)^2 r} - 32\frac{m^4}{(r-2m)^2 r^3} + 12\frac{\sin(\theta)^4 r^3 m^2}{(r-2m)^2} + \frac{\sin(\theta)^4 r^5}{(r-2m)^2} - 8\frac{r^2 m^3}{(r-2m)^2}.$$
$$g^{\mu\nu}\,\Gamma^{2}_{\mu\nu} = \cos(\theta)\sin(\theta)^3 r^2.$$
$$g^{\mu\nu}\,\Gamma^{3}_{\mu\nu} = 0.$$