Schwarzschild Metric in spherical coordinates:

$\boxed{x^{\mu}}$

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

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

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

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

$\surd = \sqrt{\sin(\theta)^2 \exp(B(r)) \exp(A(r)) r^4}.$

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

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

$\boxed{\Gamma^{\sigma}_{\mu\nu}}$

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

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

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

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

$\boxed{\ddot{x}^\mu = \left(\Gamma^0_{\sigma\rho}\dot{x}^\mu - \Gamma^\mu_{\sigma\rho}\right)\dot{x}^\sigma\dot{x}^\rho}$

$\ddot{x}^0 = 0.$
$\ddot{x}^1 = \frac{1}{2}\frac{2\sin(\theta)^2\dot{z}^2 r - \dot{x}^2 B'(r)\exp(B(r)) - A'(r)\exp(A(r)) + 2\dot{x}^2 A'(r)\exp(B(r))}{\exp(B(r))}.$
$\ddot{x}^2 = \cos(\theta)\sin(\theta)\dot{z}^2.$
$\ddot{x}^3 = \frac{\dot{x}A'(r)\dot{z}r - 2\dot{x}\dot{z}}{r}.$

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

$R_{00} = -\frac{1}{4}\frac{4A'(r)\exp(A(r)) + 2\exp(A(r))A''(r)r + A'(r)^2\exp(A(r))r - A'(r)B'(r)\exp(A(r))r}{\exp(B(r))r}.$
$R_{01} = 0.$
$R_{02} = 0.$
$R_{03} = 0.$
$R_{10} = 0.$
$R_{11} = \frac{1}{4}\frac{A'(r)^2 r + 2A''(r)r - 4B'(r) - A'(r)B'(r)r}{r}.$
$R_{12} = 0.$
$R_{13} = 0.$
$R_{20} = 0.$
$R_{21} = 0.$
$R_{22} = -\frac{1}{2}\frac{-2 + B'(r)r + 2\exp(B(r)) - A'(r)r}{\exp(B(r))}.$
$R_{23} = 0.$
$R_{30} = 0.$
$R_{31} = 0.$
$R_{32} = 0.$
$R_{33} = -\frac{1}{2}\frac{B'(r)\sin(\theta)^2 r + 2\sin(\theta)^2\exp(B(r)) - A'(r)\sin(\theta)^2 r - 2\sin(\theta)^2}{\exp(B(r))}.$

$\boxed{R^\mu_{\ \nu}}$

$R^0_{\ 0} = -\frac{1}{4}\frac{A'(r)^2}{\exp(B(r))} + \frac{1}{4}\frac{A'(r)B'(r)}{\exp(B(r))} - \frac{1}{2}\frac{A''(r)}{\exp(B(r))} - \frac{A'(r)}{\exp(B(r))r}.$
$R^0_{\ 1} = 0.$
$R^0_{\ 2} = 0.$
$R^0_{\ 3} = 0.$
$R^1_{\ 0} = 0.$
$R^1_{\ 1} = -\frac{1}{4}\frac{A'(r)^2}{\exp(B(r))} + \frac{1}{4}\frac{A'(r)B'(r)}{\exp(B(r))} - \frac{1}{2}\frac{A''(r)}{\exp(B(r))} + \frac{B'(r)}{\exp(B(r))r}.$
$R^1_{\ 2} = 0.$
$R^1_{\ 3} = 0.$
$R^2_{\ 0} = 0.$
$R^2_{\ 1} = 0.$
$R^2_{\ 2} = \frac{1}{r^2} - \frac{1}{2}\frac{A'(r)}{\exp(B(r))r} - \frac{1}{\exp(B(r))r^2} + \frac{1}{2}\frac{B'(r)}{\exp(B(r))r}.$
$R^2_{\ 3} = 0.$
$R^3_{\ 0} = 0.$
$R^3_{\ 1} = 0.$
$R^3_{\ 2} = 0.$
$R^3_{\ 3} = \frac{1}{r^2} - \frac{1}{2}\frac{A'(r)}{\exp(B(r))r} - \frac{1}{\exp(B(r))r^2} + \frac{1}{2}\frac{B'(r)}{\exp(B(r))r}.$

$\boxed{R}$

$R = 2\frac{1}{r^2} - \frac{1}{2}\frac{A'(r)^2}{\exp(B(r))} + \frac{1}{2}\frac{A'(r)B'(r)}{\exp(B(r))} - \frac{A''(r)}{\exp(B(r))} - 2\frac{A'(r)}{\exp(B(r))r} - 2\frac{1}{\exp(B(r))r^2} + 2\frac{B'(r)}{\exp(B(r))r}.$

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

$$G^{0}{}_{0} = -\frac{-1 + B'(r)r + \exp(B(r))}{\exp(B(r))r^2}.$$
$$G^{0}{}_{1} = 0.$$
$$G^{0}{}_{2} = 0.$$
$$G^{0}{}_{3} = 0.$$
$$G^{1}{}_{0} = 0.$$
$$G^{1}{}_{1} = -\frac{-1 + \exp(B(r)) - A'(r)r}{\exp(B(r))r^2}.$$
$$G^{1}{}_{2} = 0.$$
$$G^{1}{}_{3} = 0.$$
$$G^{2}{}_{0} = 0.$$
$$G^{2}{}_{1} = 0.$$
$$G^{2}{}_{2} = \frac{1}{4}\frac{2A'(r) + A'(r)^2 r + 2A''(r)r - 2B'(r) - A'(r)B'(r)r}{\exp(B(r))r}.$$
$$G^{2}{}_{3} = 0.$$
$$G^{3}{}_{0} = 0.$$
$$G^{3}{}_{1} = 0.$$
$$G^{3}{}_{2} = 0.$$
$$G^{3}{}_{3} = \frac{1}{4}\frac{2A'(r) + A'(r)^2 r + 2A''(r)r - 2B'(r) - A'(r)B'(r)r}{\exp(B(r))r}.$$

$\boxed{G}$

$$G = -2\frac{1}{r^2} + \frac{1}{2}\frac{A'(r)^2}{\exp(B(r))} - \frac{1}{2}\frac{A'(r)B'(r)}{\exp(B(r))} + \frac{A''(r)}{\exp(B(r))} + 2\frac{A'(r)}{\exp(B(r))r} + 2\frac{1}{\exp(B(r))r^2} - 2\frac{B'(r)}{\exp(B(r))r}.$$

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

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

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

$$g^{\mu\nu}\,\Gamma^{0}_{\mu\nu} = 0.$$
$$g^{\mu\nu}\,\Gamma^{1}_{\mu\nu} = \frac{\sin(\theta)^4 r^3}{\exp(B(r))} + \frac{r^3}{\exp(B(r))} - \frac{1}{2}B'(r)\exp(B(r)) + \frac{1}{2}\frac{A'(r)\exp(A(r))^2}{\exp(B(r))}.$$
$$g^{\mu\nu}\,\Gamma^{2}_{\mu\nu} = \cos(\theta)\sin(\theta)^3 r^2.$$
$$g^{\mu\nu}\,\Gamma^{3}_{\mu\nu} = 0.$$