Robertson-Walker Metric of a flat universe:

$\boxed{x^\mu}$

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

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

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

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

$\surd = \sqrt{r^4 a(t)^6 \sin(\theta)^2}.$

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

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

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

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

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

$\Gamma^{2}_{00} = 0.$

$\Gamma^{2}_{01} = 0.$

$\Gamma^{2}_{02} = \frac{\dot{a}(t)}{a(t)}.$

$\Gamma^{2}_{03} = 0.$

$\Gamma^{2}_{10} = 0.$

$\Gamma^{2}_{11} = 0.$

$\Gamma^{2}_{12} = \frac{1}{r}.$

$\Gamma^{2}_{13} = 0.$

$\Gamma^{2}_{20} = \frac{\dot{a}(t)}{a(t)}.$

$\Gamma^{2}_{21} = \frac{1}{r}.$

$\Gamma^{2}_{22} = 0.$

$\Gamma^{2}_{23} = 0.$

$\Gamma^{2}_{30} = 0.$

$\Gamma^{2}_{31} = 0.$

$\Gamma^{2}_{32} = 0.$

$\Gamma^{2}_{33} = -\cos(\theta)\sin(\theta).$

$\Gamma^{3}_{00} = 0.$

$\Gamma^{3}_{01} = 0.$

$\Gamma^{3}_{02} = 0.$

$\Gamma^{3}_{03} = \frac{\dot{a}(t)}{a(t)}.$

$\Gamma^{3}_{10} = 0.$

$\Gamma^{3}_{11} = 0.$

$\Gamma^{3}_{12} = 0.$

$\Gamma^{3}_{13} = \frac{1}{r}.$

$\Gamma^{3}_{20} = 0.$

$\Gamma^{3}_{21} = 0.$

$\Gamma^{3}_{22} = 0.$

$\Gamma^{3}_{23} = \frac{\cos(\theta)}{\sin(\theta)}.$

$\Gamma^{3}_{30} = \frac{\dot{a}(t)}{a(t)}.$

$\Gamma^{3}_{31} = \frac{1}{r}.$

$\Gamma^{3}_{32} = \frac{\cos(\theta)}{\sin(\theta)}.$

$\Gamma^{3}_{33} = 0.$

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

$R_{00} = 3\frac{\ddot{a}(t)}{a(t)}.$

$R_{01} = 0.$

$R_{02} = 0.$

$R_{03} = 0.$

$R_{10} = 0.$

$R_{11} = -\ddot{a}(t)a(t) - 2\dot{a}(t)^2.$

$R_{12} = 0.$

$R_{13} = 0.$

$R_{20} = 0.$

$R_{21} = 0.$

$R_{22} = -2r^2\dot{a}(t)^2 - \ddot{a}(t)r^2a(t).$

$R_{23} = 0.$

$R_{30} = 0.$

$R_{31} = 0.$

$R_{32} = 0.$

$R_{33} = -\ddot{a}(t)r^2a(t)\sin(\theta)^2 - 2r^2\dot{a}(t)^2\sin(\theta)^2.$

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

$R^{0}{}_{0} = 3\frac{\ddot{a}(t)}{a(t)}.$

$R^{0}{}_{1} = 0.$

$R^{0}{}_{2} = 0.$

$R^{0}{}_{3} = 0.$

$R^{1}{}_{0} = 0.$

$R^{1}{}_{1} = 2\frac{\dot{a}(t)^2}{a(t)^2} + \frac{\ddot{a}(t)}{a(t)}.$

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

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

$R^{2}{}_{0} = 0.$

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

$R^{2}{}_{2} = 2\frac{\dot{a}(t)^2}{a(t)^2} + \frac{\ddot{a}(t)}{a(t)}.$

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

$R^{3}{}_{0} = 0.$

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

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

$R^{3}{}_{3} = 2\frac{\dot{a}(t)^2}{a(t)^2} + \frac{\ddot{a}(t)}{a(t)}.$

$\boxed{R}$

$R = 6\frac{\dot{a}(t)^2}{a(t)^2} + 6\frac{\ddot{a}(t)}{a(t)}.$

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

$G^{0}{}_{0} = -3\frac{\dot{a}(t)^2}{a(t)^2}.$
$G^{0}{}_{1} = 0.$
$G^{0}{}_{2} = 0.$
$G^{0}{}_{3} = 0.$
$G^{1}{}_{0} = 0.$
$G^{1}{}_{1} = -\frac{\dot{a}(t)^2}{a(t)^2} - 2\frac{\ddot{a}(t)}{a(t)}.$
$G^{1}{}_{2} = 0.$
$G^{1}{}_{3} = 0.$
$G^{2}{}_{0} = 0.$
$G^{2}{}_{1} = 0.$
$G^{2}{}_{2} = -\frac{\dot{a}(t)^2}{a(t)^2} - 2\frac{\ddot{a}(t)}{a(t)}.$
$G^{2}{}_{3} = 0.$
$G^{3}{}_{0} = 0.$
$G^{3}{}_{1} = 0.$
$G^{3}{}_{2} = 0.$
$G^{3}{}_{3} = -\frac{\dot{a}(t)^2}{a(t)^2} - 2\frac{\ddot{a}(t)}{a(t)}.$

$\boxed{G}$

$G = -6\frac{\dot{a}(t)^2}{a(t)^2} - 6\frac{\ddot{a}(t)}{a(t)}.$

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

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

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

$g^{\mu\nu}\,\Gamma^{0}_{\mu\nu} = -r^4\dot{a}(t)a(t)^3 - r^4\dot{a}(t)a(t)^3\sin(\theta)^4 - \dot{a}(t)a(t)^3.$
$g^{\mu\nu}\,\Gamma^{1}_{\mu\nu} = r^3a(t)^2 + r^3a(t)^2\sin(\theta)^4.$
$g^{\mu\nu}\,\Gamma^{2}_{\mu\nu} = r^2\cos(\theta)a(t)^2\sin(\theta)^3.$
$g^{\mu\nu}\,\Gamma^{3}_{\mu\nu} = 0.$